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[illegible] Madison Avenue, New York, February 20th, 1878.

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ALFRED C. POST, M. D., L. L. D.,
Emeritus Professor of Clinical Surgery in the University of New York; Visiting Surgeon to Presbyterian Hospital, etc.

[illegible] SOUTH SIXTEENTH STREET, PHILADELPHIA, July 7th, 1880.

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Physician to German Hospital.

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123 *Lansdowne Road, Notting Hill, W., London, October 16th*, 1880.

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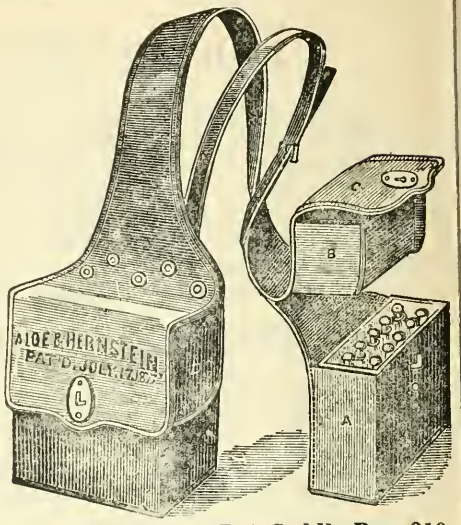

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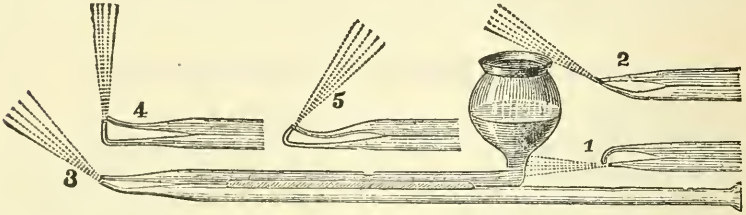

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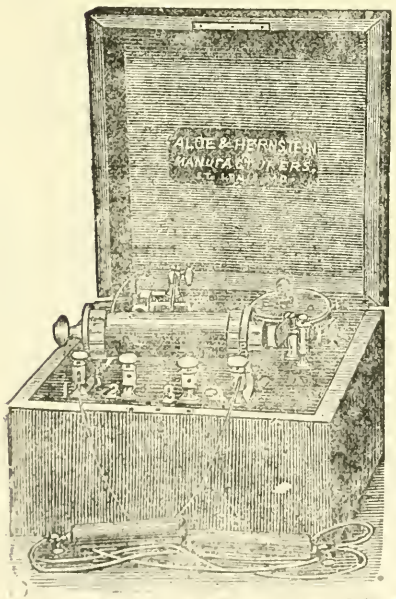

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Prof. Parker, of New York, says "I have tried almost every other manufacturer's Oil, and give yours the decided preference."

Prof. Hays, State Assayer of Massachusetts, after a full analysis of it, says: "It is the best for foreign or domestic use."

After years of experimenting, the Medical Profession of Europe and America, who have studied the effects of different Cod Liver Oils, have unanimously decided the light straw-colored Cod Liver Oil to be far superior to any of the brown Oils.

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OF ICELAND MOSS,

AN INSTANTANEOUS & PERFECT SUBSTITUTE
FOR LINSEED MEAL AND OTHER POULTICES.

It is preferable to the latter, because it is

Clean, for it will not soil the linen.

Unobjectionable, for it will not emit any unpleasant odor.

Unchangeable, for it will not ferment.

Economical, for the same Poultice can be applied for many days without undergoing any change.

Lelievre's Poultices are sold in packets containing three and six sheets 5 by 8 inches, and in rolls 8 by 30 inches

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We offer to the Medical Profession a series of well prepared and reliable pharmaceutical products, in which the unpleasant taste and disagreeable odor of the various remedial substances contained in them are entirely covered, and other drawbacks to their administration obviated. The form of Globules is especially applicable to liquids, but may also be applied to pulverulent remedies, simple or compound. It is especially adapted to Ethers and Ethereal fluids ; Oils, fixed or volatile ; Oleo-resins ; Balsams, etc., and is by far the most convenient as well as most elegant form for administering them.

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Ether, Chloroform, Oil of Turpentine, Apiol, Phosphorated Oil (containing 1-64th grain of Phosphorus), **Tar, Venice Turpentine, Copaiba, Copaiba and Tar, Oleo-Resin of Cubebs, Balsam of Peru, Oleo-Resin of Male Fern, Oil of Sandal, Oil of Eucalyptus, Cod-Liver Oil, Rhubarb, Bicarb. of Soda.**

For a full list of the various kinds of Globules, with the quantity of the medicinal agents contained in each Globule, see pamphlet, which will be furnished or mailed on application, by the agents,

E. FOUGERA & COMPANY,

30 North William Street, New York.

Original Contributions.

Article LXXV.

NOTES OF CASES IN GENITO-URINARY SURGERY.

—Case No. III.—

Chronic Prostato-Cystitis, due to large but dense Stricture of the Penile Urethra, and Stricture at the Bulb of large Calibre.—Internal Urethrotomy at the Bulb. Persistent Erections; Late Hemorrhage.—Complete Recovery. By W. Hutson Ford, A. M., M. D., of St Louis.

March 31, 1880. Mr. M. D. L., æt. 44, married: has had several children. Never had syphilis or gonorrhœa, he says. Of spare build, and with a haggard countenance. A native of Missouri. Complains of sleeplessness. Says that it has been his habit for years to retire at 9 P. M., getting out of bed again after sleeping two or three hours. He then sits up until three or four in the morning, and sleeps again until half past six or seven. He does not sleep altogether more than five hours out of the twenty-four. Is obliged to pass water three or four times during the night, and three times a day. There is no pain or tenderness in the supra-pubic region. The prostate is of normal size and sensibility; there is no rectal trouble.

Insomnia.

Frequent Micturition.

When a boy, was thrown violently from a horse astride a cow, does not know, however, that his urethra was wounded at the time. The urine is turbid at times. Sexual desire is imperfect and declining. Testicles very small. Was operated upon in St. Louis, some years ago, for varicocele of the right side. In 1869, he had a retention for forty-eight hours, brought on by grief for the loss of a child. Complains of excitability and nervousness, for which he takes bromide of potassium and chloral, though not every night. Suffers from pain and weakness in the back, especially when obliged, as a lawyer, to stand a long time in court. Advised nightly hot-baths, and section of the strict-

Sub-acute Prostato-Cystitis.

Old Retention.

Rachialgia.

ures after due preparation with the sound and otherwise. The urethra is very sensitive in its deeper portions. Circumference of penis, 3¼ to 3½ inches. The estimated calibre of the urethra is 33.

April 1, B. B. 29 passes to bulb. B. B. 16 passes bulb with difficulty. The entire urethra is very sensitive. Urine highly acid; no albumen; not putrid: sp. gr. 1026. Got up to pass water but once last night. The urine lets fall a well-marked cloud of muco-pus. Ordered hot sitz-bath every night, and warm bath with skin-friction twice a week; the usual simple regimen, and gr. xxv. sod. bicarb., four times a day in Vichy water.

April 6, B. B. 32, passed without obstruction to bulb. The first two and a half inches of the urethra are exceedingly sensitive, notably a point half an inch beyond the meatus. There is a rugose dense stricture of large calibre 3½ inches down, of diameter 31. C. S. 29 can be passed into the bladder without a great deal of coaxing or much pain.

April 8. Band half an inch down divided to 35. C. S. 32 passed well through bulb. Sensibility of the urethra greatly diminished. Urine rather pale; devoid of odor; strongly alkaline from the soda he is taking. Scarcely any pain in the suprapubic region. Appetite good. His headaches are not so severe, but he scarcely sleeps at night. Urine deposits pus copiously. The prostatic region of the urethra is very sensitive to the sound.

April 13. B. B. 33 passes well. Three inches and a half down, B. B. 31 reveals the contraction spoken of above. C. S. 29 and C. S. 32 pass through the stricture and through the bulbar contraction. Passes water very often at night; every half hour or so. Ordered Pareira Brava.

April 15. Better; urethral tenderness scarcely noticeable, as far as the bulb. B. B. 12 only will pass the bulb, while C. S. 31 goes through the bulb with much difficulty and pain. The bulbous portion is painful and irritated by the use of sounds of too large a size. Internal urethrotomy will be performed soon.

Irritation of the Bulbar Contraction.

April 21. After due preparation with quinine and dieting, the bowels having been moved the day before with castor oil, internal urethrotomy at the bulb and 3½ inches down (peno-scrotal angle) was done to a diameter of 35. B. B. 33 passed readily. Dr. E. H. Gregory

Internal Urethrotomy at the Bulb.

present and assisting. Compressor to perineum, penis splinted.

April 22. Doing well. Bleeding when he makes water.

April 23. Condition good up to 10 A. M. Getting up to go to stool, he felt acute pain at bulb, and had a severe rigor a few minutes afterwards. Rigor.

April 24. Doing well; no further rigor: bleeding nearly ceased.

April 25. No rigor: ordered a mild laxative and an alkaline diuretic; quinine.

April 26. Urine perfectly clear. Temperature normal.

8 P. M. After sitting up half an hour this morning, he began to have pain and difficulty in urination. This culminated in an attack of absolute retention next day. Retention.

April 27. Aspirated by supra-pubic puncture to 28 oz. at 11 P. M.

April 28. Better; c. s. 26 passed.

April 28, 8 P. M. Has passed water abundantly. Temperature 100° Pareira and soda. Quinine in reduced doses.

April 29. c. s. 28 passed. Urine clear. Temperature normal.

April 30. Urine turbid; no bleeding; temperature normal; no sound passed. Stream of water much freeer. Cystitis persists; pain during micturition. Frequent erections.

May 1. Called hurriedly at 4 P. M. Copious hemorrhage from the bulb. Has lost a large quantity of blood. Applied my perineal tourniquet, which acted admirably, the bleeding being instantly arrested. Aspiration. Hemorrhage due to an erection. Aspiration at 4: 30, P. M., and at 11 P. M. No further hemorrhage Temp. 101¾° Hemorrhage on the eleventh Day.

May 2. No bleeding. Temperature and pulse normal. Bowels have moved. Cold applications to the perineum and penis to prevent erections.

May 3. c. .s 33 passed into bladder. Urine clear. The stricture at 3½ inches down refuses B. B. 33. It must be divided more thoroughly.

May 4. This contraction was thoroughly divided at my office with Otis' dilating urethrotome to 36. Otis' bulb urethrotome was tried but could not be made to work.

After this the urine rapidly improved, and his symptoms disappeared. He passed a week or ten days in the country, and

came back much improved. His complexion became clear and of a good color, within two or three weeks, and his pain and weakness in the back left him. He stated when he saw me last, that he slept all night, and was no longer troubled by excitability and nervousness during the day. He was taught to pass a 33 sound, and instructed in various points relating to his health.

Complete Recovery.

ARTICLE LXXVI.

THE HISTO-PATHOLOGY OF SCARLET FEVER.* By Dr. G. V. BLACK, of Jacksonville, Ills.

By the term Histo-Pathology, we intend to convey something more than is usually included under the term Pathology, or Pathological Anatomy. Under the latter terms it is common to describe the changes which have taken place in the course of a disease; but without special reference to the particular form of tissue primarily attacked, or the order of the passage of the disease from one tissue to another. Under the term Histo-pathology, we propose to study the individual disease, in relation to the individual tissues. We try to learn what tissue, or tissues, are attacked by preference by the individual disease, and what tissues may be attacked secondarily, either on account of continuity, or because of similarity of structure or function.

This mode of tracing diseased action, offers some peculiar advantages in the analysis of maladies, not provided by the more common modes of study.

By it we find that Syphilis, though so widely diffused, is confined to the connective tissue group, and affects the Epithelium, Brain, etc. only by the accident of occupying the connective tissue of the immediate neighborhood. That cancer is confined to the epithelium in its origin, and involves the subjacent tissues secondarily, by reason of the irritation which it induces. The constitutional causes, which induce inflammation of the menin-

* Read before the Tri-State Medical Society at Louisville, Ky., Nov. 9, 1880.

ges or the brain, do not necessarily induce inflammation of its substance. Again, that the causes which give rise to cerebral meningitis, usually induce spinal meningitis also; because of the near identity of structure and function. Hence, cerebro-spinal meningitis is common; while cerebral meningitis, or spinal meningitis, occuring alone are seldom seen. A pneumonitis does not necessarily cause a pleuritis, nor the reverse, notwithstanding the contiguity of the tissues. One form of rheumatism affects the fibrous tissues; another the voluntary muscles; but each form is confined to these particular tissues; and may occur wherever these tissues exist. If a change occurs, to the peculiar tissue of the heart membranes, there is also a change in the character of the inflammatory action. We mention these well-known examples of elective affinity of specific diseases, for specific tissues, as suggesting the benefits to be derived from this mode of study; and to show how closely we should keep in view, not only the microscopic anatomy of the parts, but also the origin and function of the individual structures; since all of these have to do in determining the course of the disease.

Therefore, in the present study, we deem it necessary to note briefly, the origin and development of the tissues involved in pathological change, that we notice the differentiations which arise; the special points of juxtaposition, and contiguity, at which we have found the disease to depart from the tissue of its election. We think this important to the full understanding of what we have to say; first, because of the little attention usually given to the subject by medical men; second, because of the great confusion of Histological terms now in use: especially, those designating the varieties of Thelia. For the sake of a clear understanding, we shall simplify these by using terms which shall express, as far as possible, the origin and function of the structures mentioned; rather than the more generaly used nomenclature.

Before doing this, however, we will say that we regard scarlet fever as an epidemic, contagious disease; caused by a peculiar and specific poison; the first effects of which seem to be upon the constitution at large, acting probably as a blood poison; the final and characteristic feature of which, is a peculiar inflammation of the Epithelial structures. The symtomatology of the affection will only be noticed incidentally; nor will we make more than passing mention of some points in treatment; it

being our intention to confine ourselves as closely as possible, to the one subject of the Histo-pathology of the affection.

We begin with the Ovum. The first thing noticed, after the fecundation of the egg, is what is called its segmentation, which continues to divide the mass into smaller, and smaller particles, until it becomes a mass of globular cells. With the growth of the egg, these globules recede from the center to the periphery—leaving a fluid center—and form a membrane by the junction of their margins. Then a peculiar thickening occurs at one point, the germinal spot, at which point two membranes are formed. The Ectoderm, or external blastodermic membrane, and the Entoderm, or internal blastodermic membrane. Now, by a growth from the median line, (Primitive stripe) of the ectoderm, a third membrane, the mesoderm, is formed between the two first. Now, from these three primitive membranes, all the tissues of the body are formed, except the nervous structures, each membrane performing its especial task. From the Ectoderm and Entoderm, are formed the tissues of vegetative functions. From the mesial membrane, the tissues of support and motion, and the functional tissue of reproduction.

For the formation of the nervous tissues, two plates rise simultaneously along the back of the fœtus, and arching over come together, forming a tube in which the structures are developed for the supply of the nervous function.

It is especialy with the Ectoderm and Entoderm, that we have now to deal; and we must therefore note the tissues formed from each portion of them, and will call especial attention to their variations; for upon their proper appreciation, will depend our appreciation, of the peculiarities manifested by the disease under consideration.

The plates of the entoderm rapidly close together from each end of the Fœtus toward the center, and finally form a straight closed tube, from which the intestines are developed from the cardiac orific of the stomach to the rectum. All of the glands which minister to the function of digestion, except the salivary glands, are formed by buds from its epithelium, and the glands thus formed are all tubal glands, except three; the Liver, Pancreas and Brunner's glands. These tubal glands stud the walls of the intestine in every part, from the cardiac orifice of the stomach, to the rectum. Indeed the alimentary canal is one continuous gland. In the duodenum, the tubal glands are

longest, bifurcated, and coiled into an imperfect glomerule at their distal ends; in some measure, resembling the tortuous tubules of the kidney. In all other parts of the intestine, they are short, straight tubes, with wide open mouths. These tubal glands seem to be simple indippings of the epithelium, almost without change of Histologieal form, exeept, it may be the Peptic glands of the stomach. But in the Pancreas and in Brunner's glands, and especialy in the Liver, there is a wide differentiation of the cells. In this system we find a peculiar columnar epithelium, which constitutes the epithelium of alimentation, a distinct type, performing a distinct function.

From the upper portion of the original tube formed by the entoderm, (or more correctly, from this portion, before the tube is formed,) we find large buds thrown out, which are destined to form the tubal respiratory system; the lungs, in which there is a distinct and radical differentiation of the columnar cell, which results in the columnar ciliated, or tubal respiratory epithelium. This becomes flattened in the air vesicles, and constitutes the vesicular respiratory variety. These are the functional tissues of respiration; and from them, are formed all the glands, and tubes, which minister to that function. These cross the upper alimentary tract at the Pharynx, a point of special interest in the present study.

From the external blastodermic membrane or Ectoderm, is formed the squamous epithelium; or horny covering of the skin, which constitutes a special variety. The derivations from it present various and wonderful modifications, which enable it to serve the animal in widely different forms. First, it forms the sweat glands, the only tubal glands of the skin proper, by buds, or ingrowths, from the inner, or Malpighian, layer of its cells; which form the functional cells of these glands. They seem to be without any special histological modification. It also forms, in this way, all the glands which minister to, or open upon the skin. All others being racemose or lobular, with distinct modification of the epithelium. At the same time and in the same way, by ingrowths, it forms the crystalline lens; the hairs, the nails, etc., by a wide differentation of its cells. By similar ingrowths, but without marked change in its cells, it forms the meatus auditorius, the anus, a part of the urethra and vagina. At the same time that the respiratory epithelium, by an outgrowth, forms the nares; the squamous epithelium, by an in-

growth, forms the mouth: and crossing the tract of the former, follows the œsophagus down to its junction with the stomach. This forms the muco-squamous epithelium; which, in the pharynx comes in direct contact with the respiratory epithelium; and, according to Krause, there is a change in the character of the cells of each as they approach each other, as if there were an effort to form an intermediate type—*Ebergangs epitel.*

In the mouth, this epithelium, the muco-squamous, forms the salivary and mucous glands—lobular—the tonsils and post-lingual glands—tubular. While the respiratory epithelium forms the Eustachian tubes and middle ear; or tympanic cavity. The enamel of the teeth is formed, also, from ingrowths of the muco-squamous epithelium upon the gums.

The exact origin of the kidneys, and their epithelium, is not fully agreed upon by Histologists. They are developed very early, and in close connection with the reproductive organs; and much time has been spent, by very able men, in the effort to clear up the cloud in which their origin is veiled. At present it seems most likely that the kidneys do not take their origin from the Wolffian bodies, as heretofore supposed; and their epithelium is probably not from that source. The Wolffian bodies and the sexual glands are derived from the mesoderm. The kidneys are probably from the entoderm. Whatever may be the origin of the kidneys, the character of the glands themselves is clear. They are the most highly developed tubal glands in the body, and more nearly resemble the sweat glands than any other; both are essentially tubal; both have a glomerule, that of the kidney being the most highly developed. At one stage of the development of the renal tubules, they are precisely like the fully developed sweat gland. The kidneys would be closely represented by sweat glands, massed together. Their Thelia also very closely resemble that of the sweat glands, much more closely than that of any other of the tubal glands, unless be the Lieberkühnian glands of the duodenum.

Thus we substitute for the impericism which has for-ages selected the intestinal tract, and the sweat glands, for the vicarious elimination of urea, in disabled state of the kidneys, a well grounded reason, or explanation of the process. In many respects, however, the kidneys are essentially unique, both in structure and function.

There are several other varieties of thelia. The Pavement

or serious endothelium, the endothelia of the blood-vascular, and lymphatic systems; which are derived from the mesoderm; also, the pseudo thelia of the synovial membranes, and the peculiar ciliated thelia of the cavities of the brain, and spinal cord. None of these however are of special interest in connection with scarlet fever.

After this brief review of the derivation of these tissues, we will be able to understand each other in considering the disease in question, and the reasons for considering scarlet fever peculiarly an epithelial disease; as manifested in its typical lesions, their order of development, and their sequence.

The Rash, is a prominent and typical phenomenon of Scarlet Fever. It is peculiar in the fact that it is an inflammation of a tissue, which in itself has no blood vascular system; and as far as is yet certainly known, generally no nerves; and cannot therefore, except secondarily, exhibit two of the four usual signs of inflammation: namely, redness and pain. Yet redness or a dull crimson color, is the distinguishing feature of the rash. This color, however, does not belong to the tissue inflamed, but is due to the expansion, or hyperæmia, of the capillaries immediately beneath: coming very close to, but not touching this tissue. It is here that we find an explanation of the peculiar color of the rash. The tissue inflamed being the epithelium, which has no bloodvessels, the capillaries themselves are not involved in the inflammatory process, but being very close to, and ministering to the nutrition of this tissue, through endosmotic, or lacunar circulation, outside of their walls, they are much expanded; so that the volume of blood just beneath the surface is much increased. The skin becomes hyperæmic, and this produces the blush. This however is a simple hyperæmia, a mere expansion of the capillaries, which are not farther involved in the pathological changes. This being the case, the free motion of the blood through them, is not so much impeded as in inflammations of the tissue supporting the vessels. The blood, therefore, retains more nearly the arterial color; and this showing through, and modified by the superimposed epithelium, gives the peculiar crimson color to this rash.

The punctiform appearance of the rash, seems to be due to its being originally seated in the sweat glands. At least this theory best explains the phenomena; especially, when taken in

connection with the light derived from postmortem examinations of these glands. Fenwic, (Ziemssen) found the basement membrane of the sweat glands thickened, the lining epithelium absent, or when present so increased in size, in many places, as to entirely fill the canal. Some of the glands were irregularly filled with blood. This may afford an explanation of the bleeding surfaces occasionally met with in scarlet fever. Niemeyer speaks of the sweat glands containing epithelial and fibrinous casts. These changes are all in the superficial layers, or glandular elements, the thelia; not extending beyond the basement membrane of the sweat glands, the corium being normal. These observations serve to show the serious nature of the involvement of the sweat glands; and afford a rational explanation of the well-known benefits derived from inunctions with oil, in this affection. The glands are blocked with epithelial, and fibrinous casts, sometimes even with blood casts; the outer ends of which become dried in the fever parched skin. Inunctions with oil, if they do not directly dissolve and loosen these casts, certainly tend to prevent their drying, and choking the mouths of the gland ducts; and thus enable them to empty their abnomal contents, affording great relief. From the sweat glands, which gives us the first red points—the punctiform appearance, the inflammation, as a rule, quickly extends to the epithelium between them; rendering the rash confluent, or involving the epithelium. But even when this is accomplished the color is often deeper at the original points, thus marking the more grave implication of the epithelium of the gland tubes.

We must not, however, conclude from the prominent character of these lesions of the sweat glands, that Scarlet Fever attacks them exclusively, for there is abundant evidence that it is not the sweat glands, as glands, that are the points of attack; but the thelia, especially the squamous, and its derivations which are but slightly differentiated therefrom. In support of this, we might refer to observations made in case of burns, and other severe injuries, in which large portions of the skin have been destroyed, in which case, the sweat glands are not reformed. In such cases it has been noted that the epithelium covering the cicatricial tissue, is even more seriously affected, than that of other parts. This is really what should be expected; for this epithelium is necessarily less strong, less robust, its nutrition is less perfect than that upon the normal skin; and

it succumbs more easily to the morbid action. Hence, it is occasionally noted that old sores, that have been for some time healed, have re-opened in consequence of the destruction of their epithelium. The well-known case reported by Landenberger is in point. A boy had a cicatrix from a burn, which occupied about two square feet upon the thigh, abdomen, and back, the skin having been entirely destroyed. In an attack of scarlet fever the cicatrix was necessarily involved. It became hyperæmic and œdematous; the epithelium perished over a large surface, leaving a flat ulcer. Thus we see that the scarlatinous process is in no wise confined to the sweat glands; but attacks the squamous epithelium in their absence, though the point of beginning seems usually to be in the thelia of these glands.

The Fever, in scarlatina precedes the rash from a few hours to a day or more. The mode of invasion of the rash suggests the thought that it and the fever may in fact, begin cotemporaneously, and that the latter, is largely due to the former, although apparently preceding it. The first and most serious effect of the rash is seen in the deeper parts of the sweat glands, or in the tortuous glomerules at their distal ends. It will be seen that if the inflammation begins there, and the hyperæmia in the capillaries surrounding them, the time that elapses, between the begining of the fever, and appearance of the rash, would be occupied by the progress of the inflammatory process through the thelia of the gland tubes to the surface. Hence we have a strong suspicion that the fever may be largely dependent upon the rash after all. We will speak elsewhere of those cases in which no rash appears.

We will now examine more particularly the condition of the epithelium. Merriott found that the epidermis was softened, and in persons dying during the stage of eruption, was more easily removed, than from those who died of other causes. Lächner, ascribes these phenomena to a chemically peculiar exudation in the rete Malpighii; the nature of which he could not ascertain. It seems not to have occured to him that it was a true inflammation of the epithelial structures, though the changes he describes are such as would have been considered inflammatory if seen in the connective tissue. Fenwic found the rete mucosa quite thickened, the cells enlarged, and containing numerous round cells, large nucleoli; i. e., young epithelial elements lost from

their foot-stalks; showing the excessive and imperfect proliferation of new elements so common in inflammations.

These are the usual phenomena of inflammation; they show more than mere hyperæmia of the skin. The more marked changes are, first, in the deeper layers of the epithelium, in which the young cells are increased so rapidly, that they are pushed off from the basement membrane before they are fully developed; and later they are seen in the succeeding layers of the epidermis as small round cells among the swollen and overgrown cells, which have not lost their position so early in their growth. Mixed with these are also found many wandering cells, or Leucocites which have penetrated the basement membrane and passed as far as the central portion of the epidermal layers. When these imperfectly developed cells begin to come to the surface we find them falling away in large flakes by reason of their imperfect development, and consequent imperfect union of the succeeding layers. Hence the desquamation.

Observers agree that the corium or true skin immediately beneath is found to be healthy, except in rare cases where isolated spots show signs of extension of the inflammation to the tissues beneath. These spots are of a darker color during life and mark the extension of the inflammatory process to the true skin.

[TO BE CONTINUED*.]

* In the continuation of this article in the next issue we will study the lesions of the epithelium of the alimentary tract, the kidneys, the Respiratory tract and the points of departure of the inflammatory process to other tissues etc.

ARTICLE LXXVII.

TETANUS INFANTUM.* By T. A. MARTIN, M. D., of Dalton Mo.

Mr. President and gentlemen of the Society, as I have been appointed to read an article on the above mentioned subject, I thought it best to begin the essay by giving the notes of a case of the disease which came under my charge the past winter.

On March the 16th I was called to attend C. T. S. aet. 5 days. The patient was a well developed healthy looking male child. The mother informed me that she had noticed nothing to indicate ill health with the child until the previous evening. Then she noticed that it could not nurse although it made strenuous efforts to do so. The inability she said seemed to arise from difficulty of opening its mouth sufficiently to admit the nipple of the breast. She noticed too that the child when it attempted to cry made a very peculiar whining and unnatural sound. She had given it a dose of castor oil which had acted freely on the bowels. A normal amount of urine had been discharged.

When I first saw the child it was lying in the nurse's lap and upon a casual and slight examination I concluded there was little or nothing wrong with him; but upon moving it slightly, I noticed a spasamodic contraction of the muscles of the face, and also of the flexor muscles of hands, forearm and arm. The contraction of muscles of the face producing the Risus Sardonicus or sardonic grin, so characteristic of tetanus. At the same time, I noticed the unnatural whining cry mentioned above.

The cord was off and the navel nearly healed, and I could detect nothing abnormal in this situation. Upon examining the head, I detected an inward displacement of the occipital bone, more marked upon the right side. The convulsions when the child was left quiet occurred about every half hour; but

* Read before Moberly Distric Medical Association.

the slightest movement, the touch of a handkerchief upon the face would produce them.

DIAGNOSIS.—TRISMUS NEONATORUM.

TREATMENT.—I directed that it should be fed frequently of breast milk, that it should be laid upon its side, and that a warm bath should be given it, and after bathing it to keep it as quiet as possible.

In addition I ordered:

℞ Chloral Hydrat.....grs. xx.
Syr. Auranti Cort
Aquæ.....aaℨss.

Sig. A teaspoonful every three or four hours.

March 17th. A. M. The convulsions have continued through the night increasing in frequency and in severity. They are now, almost constant; inhalation of chloroform has no perceptible effect in lessening either. I find that little or no medicine has been administered on account of patient's being unable to swallow. The contact of the spoon on the lips always producing a spasm, causing the fluid medicine or milk to be forcibly ejected from the mouth. The patient is comatose and its demise is evidently imminent.

March 17th. P. M. Dr. Dewey saw the patient with me this afternoon and concurs in diagnosis, but as his condition was obviously hopeless no farther treatment was attempted. The child died on the night of the 17th. about forty hours from commencement of attack. The patient's grand-mother who was present informs me that her daughter lost a child affected in precisely the same way about one year ago. It was attacked when five days old and lived about forty hours. No physician was called and no treatment given.

Trismus nascentium is a neuropathic disease characterized by convulsions, usually begining by spasmodic contraction of muscles supplied by the fifth branch of facial and portio mollis of the seventh pair of nerves. It is one of the earliest and one of the most fatal affections incident to childhood. It usually occurs between the 3rd and 10th day. It closely resembles tetanus as it occurs in adult life in many of its features; differing however materially as to cause. This disease is nearly always in the latter, due to traumatic origin; whereas, the malady occurring in

infancy is most frequently idiopathic in the beginning, unless we could consider the abscinging and subsequent sloughing of the cord a traumatism. Our knowledge of this disease is but little in advance of the physicians of one hundred years ago.

It is a notable fact that it is a much more frequent affection among negroes than with our own race. This I believe to be due not to any inherent tendency or predisposition on their part; but mainly caused by their well known want of cleanliness, and their utter disregard of sanitary laws, and hygienic surroundings.

CAUSES.—Unfavorable hygienic surroundings I believe to be a most prolific cause in producing this disease; in this particular bad ventilation, breathing impure and vitiated air should probably rank first. This fact was most forcibly brought to the notice of the profession as long as A. D. 1798, by Dr. Joseph Clark, then physician in charge of the Dublin Lying-in Asylum by a paper read before the Royal Irish Academy of Medicine. In that article he showed that previous to the year 1782, of 17,650 children born at that institution, 2,944 or about one sixth had died during the first two weeks of life, and that the great majority of these early deaths were due to this complaint.

At his instigation and through his instrumentality, better sanitary regulations were enforced, better ventilation procured, and the result was, that from the time of the presentation of this essay, and the adoption of these sanitary measures, the death rate was lowered from one sixth to one in nineteen. Great and sudden variations of temperature is another assignable cause; as the disease is more frequent in those seasons of the year when warm days are succeeded by cool or cold nights. Exposure to drafts of air, to contact of damp clothing, have all been mentioned as a cause. A case exemplifying in a marked degree the latter, was reported in the *Southern Journal of Medicine and Pharmacy*, in 1846 by Dr. P. C. Gaillard.

For many years past, disease of the umbilicus either ulceration or inflammation has been considered as the most frequent cause, and Smith says in his summing up of causes, that inflammation of the umbilicus and umbilical arteries and veins is the most frequent lesion found.

Consequently, some writers claim that it is non-attention to or improper dressing of the cord that causes this disease.

Marion Sims, in 1846, in an article published in *Am. Jour. Med. Sciences*, said that trismus neonatorum, was of centric origin and attributed its occurrence generally to pressure upon the medulla oblongota, caused by an inward displacemement of the occipital bone.

Retained meconium has caused, it has been said, this disease.

ANATOMICAL LESIONS.—The cerebral capillaries are usually much distended with blood. Not infrequently they are found ruptured, and extravasations occur; serous effusions into ventricles, and into sub-arachnoid space are usually found. The meninges of brain and cord are generally greatly congested. The cerebral substance is frequently softened.

MICROSCOPIC APPEARANCES.—The constant anatomical lesion of the cord, is a proliferation of the connective tissue. It is a viscous mass abounding in nuclei, and found almost exclusively in the gray substance. (Meigs and Pepper. Diseases of children.)

SYMPTOMS.—There are usually no recognizable premonitory symptoms. The first evidence generally, is an inability to nurse the breast. This is soon followed by the peculiar cry, and risus sardonicus; the attack is generally gradual and insidious.

PROGNOSIS.—The prognosis is eminently unfavorable. Some authors have stated that they have never seen or known of a recovery. From a well established case, some idea may be obtained of its fatality, from the fact that, J. Lewis Smith was able to collect data of but 8 cases of recovery, and this is a disease that prevails extensively in some localities.

TREATMENT.—This disease verifies to a greater degree probably, than any other, the old adage than "an ounce of prevention a is worth a pound of cure." Therapeutic measures in established cases, have nearly always been futile. Dr. Gaillard has reported two cures effected by the use of tinct. of cannabis indica; to one child 8 days old, he gave in one day, a half-ounce of this medicine with good results. Wourari is highly spoken of by some writers. Ext. conium and chloral hydrate, are probably the best remedies in this disease. The latter when it is impossible to administer by the mouth, should be given by injection in sufficient doses to arrest the muscular rigidity, and control the convulsive seizures. Three or four grains injected into the

rectum every 3 or 4 hours would probably be sufficient. The cause should be sought for, and if possible, removed. If it be due to retained meconium, a brisk and efficient purgative would be indicated, and should be given. The child should be laid upon its side, and the most perfect quietude enjoined. During convulsive seizures, anesthetics are admissible; of these sulphuric ether is probably the safest and best.

As this is a disease of early and rapid prostration, sustaining measures should enter largely into the treatment. If the child is unable to draw the milk from the breast, as is frequently the case, the milk should be drawn, and fed to the patient. If breast milk is not obtainable, the best substitute procurable should be given, either per orem or per rectum.

ARTICLE LXXVIII.

MOTHER-MARKS.—CAN MENTAL EMOTIONS OF THE MOTHER AFFECT THE FŒTUS?* By G. M. DEWEY, M. D. Keyesville, Missouri.

The vulgar and some Doctors have believed this in all ages. The Bible has contributed not a little to further this belief. Esau, Jacob's twin brother, the Scriptures inform us was "red all over like a hairy" garment. In fact, Esau was a hairy man and Jacob a smooth man. What Esau's mother saw or what mental emotion could have made Esau hairy and Jacob smooth is hard to say. Both seemed to have had an equal chance to have been hairy. Jacob was a strong believer in sights and mental emotions marking the fœtus. And he believed the marking occurred at conception. So he put peeled poles before the eyes of the stock at the watering places. The contract with his father-in-law was that he (Jacob) was to have all the spotted and ring-streaked and striped stock and the other man all the solid colored. The result was Jacob gobbled up nearly all the stock. Now whether these peeled poles or the introduction of a spotted bull made these cattle spotted and ring-streaked and striped is hard to say

* Read Before Moberly District Medical Association.

Longings and wanderings are credited with marking the fœtus as well as sights and frights. I have often been shown blackberries and strawberries and cherries on children (so called by the mother). Now these marks no more resembled the fruit the mother said they did than they did a tumblebug. A few years ago I was called by the parents to see a pair of fine twin babies. These parents were Germans. One child was a pure Teuton as fair as an albatross; the other seemed to hail from Timbuctoo or Zanguebar. The latter had kinky hair, pug nose, dusky scrotum and copper skin. The hollow of its foot would make a "hole in the ground." The women in the neighborhood and the husbands "kin" are making a good deal of fuss about this *freak* of nature. So I was called in to decide whether all was all right. The husband and wife seemed desirious to go on in peace. So I gave a very gracefully, written opinion which was that this marking business had been believed in by all civilized nations since the birth of Jacob and Esau. That nobody doubted Rebecca's virtue. Yet she had twins also, one of whom was hairy all over which was a more marvelous freak of nature than a pigmentary deposit. This opinion gave supreme satisfaction to the bewildered husband. The woman had a very satisfactory way of explaining this strange phenomenon. She said one gloomy night when the stars were hid and the moon had gone down in the far west when she opened her door to go out she was confronted at the door by a gentlemen from Africa. She was very much alarmed and nearly fainted at the sight of this *sable* ghost. (She was then three months pregnant.) That her fear had not fully subsided when these twins first beheld the light of this mundane sphere. She thought Nature was no more freaky in her case than in Rebecca's.

Tear followed tear anon apace
  Down o'er his virtuous mother's face
I saw she had a righteous claim,
  That nature only was to blame.
'Tis just as easy to conceive,
  'Tis just as easy to believe,
If Nature by a little scare
  Could coat one's body o'er with hair
Why would she not as well be able
  To make one's skin a little sable?

The Richmond and Louisville Journal for Feb. 1870 contains the following by T. J. Williams:

"Mr. W. my uncle once employed a Miss Huffman as teacher in his family. Her powers of mind, virtues of heart, and charms of person could not be excelled. Her right inferior extremity however was some three inches shorter than her left. She had a lustrous brow and a laughing blue eye. Mrs. W., who is one of the kindest and most affectionate of women, formed an attachment to Miss H. which was perhaps as holy as that which bound Damon and Pythias together. Becoming enceinte she gave birth to a female child whose right leg like that of Miss H. was three or four inches shorter than her left, and one eye is brown and the other blue. The girl is now grown, and could hardly be distinguished from Miss H. were they of the same age."

The American Journal of the Medical Sciences for Jan. 1881 contains an article* from Dr. Wm. Hunt, Surgeon to the Pennsylvania Hospital, Philadelphia with a drawing. A woman eight and a half months pregnant was badly burnt on her arms legs back and abdomen. She was burned on May the 8th and died on the 15th. The woman gave birth to the child on the day following the burn. The fœtal heart sounds were heard up to 4 hours of its birth. This child was blistered and burnt to the same extent and in places almost exactly corresponding to the injuries on the mother. The blisters on the child were standing out fresh and full, as though recently formed, and in places the burn was deeply involved, as on the mother. The Dr. says many explanations were suggested. Such as pemphigus, syphilis, maceration etc. But upon examination none of them fitted the case. Now this is a pretty tough one but is attested by the officers of the hospital and by Prof. Penrose, Drs. E. A. Spooner, Albert Fricke, A. P. Harris, W. S. Forbes, W. B. Atkinson, J. C. Wilson and the well known dermatologists Duhring and Van Harlingen. This case seems to show that marking may take place very late in pregnancy.

July 18th 1881 I was called to see Mrs. G. aged 22, mother of one child. She thought herself 8 months pregnant. The waters were discharged before my arrival and from the signs present there must have been an unusual amount. The lady informed me she was not at full term but that for the past two weeks she had enlarged very rapidly. She said she felt the fœtal

* See JOURNAL, Feb. 1881, p. 214.

movement and hoped to have a living child yet she feared it would not be all right, as she had when three months pregnant been badly frightened by a hog walking the street with the hair nearly all scalded off. An aunt of Mrs. G. informs me that Mrs. G. ran into her house when this fright occurred—that she came crying and seemed in great distress. I informed my patient that no doctor with the brains of an oyster believed in this marking. On digital examination I found what appeared to be the bag of waters presenting and so informed the woman, concluding the discharged waters were false waters. When the os was pretty well dilated and the membranes seeming to protract the labor, I endeavoured to rupture them by scratching with my finger nail. This failing I punched a hole through them with a pencil. I thought the membrane unusually tough. About a pint of water followed. By the touch now I failed to make out the presentation, in fact, no part presented. The pains were pretty strong and in an hour or so I could feel something presenting but could not tell what it was. I knew it was not a head, or foot, or hand or knee or breech. In fact, the presenting part felt to me like a mixture of placenta, fried oysters and gats. The pains being strong the fœtus was soon expelled. It would probably weigh 6 pounds. The presenting part was the abdomen. There was no abdominal wall. No integument or muscles; all was open from the ensiform cartilage to the pubis. The liver, stomach, and kidneys were what I had felt by the touch. The body and legs were expelled together the head and placenta came last and together. The head looked as though cut off just above the ears, leaving the base of the brain. There were no frontal or parietal bones; no scalp or brain membranes There were connected with the spinal cord two substances some three inches long and an inch broad. These bodies felt and looked more like placenta than brain. In place of an umbilical cord there was some connective substance containing the vessels. This was about three inches long. There was an acute anterior curvature of the spine in the lower lumbar region. This may have caused the abdomen to be the presenting part. The bones of the face were well formed and the eyes bulging. There was no anus or genital organs. The integument covering the buttocks and thighs extended smooth from the sacrum to the pubis and from one ischium to the other. There was no sign of life in this fœtus, if it be proper to call it a fœtus.

Now, I suppose the books teach that this was a case of arrested development. This is a reasonable explanation. But what had the fright the woman received at her third month to do with this arrest? If the fright produced these deformities it did it after the third month when the fœtus should have been all right with a scalp and abdominal muscles. If the arrest took place from the scare the mother received it could only be done by cutting off nutrition to these affected parts, by cutting off the blood going to these parts. If this occurred, death of the parts and gangrene would have resulted and the death of the fœtus also. I therefore conclude that these deformities date from the commencement of fœtal life. And to attribute them to fright or scare or longings, is to expose one's ignorance of the laws of human development.

Translations.

ARTICLE LXXIX.

FROM THE FRENCH.

EXCERPTS FROM LATE FRENCH JOURNALS. [Translated for the JOURNAL.] By A. H. OHMANN-DUMESNIL, A. M., M. D., of St. Louis.

RUPTURE OF THE LONG HEAD OF THE BICEPS.—Dr. Louis Poisson has a case of a laborer aged 52. The day before entering hospital the patient was engaged in unloading a vessel and had to push a wheelbarrow upon an inclined plank. The barrow turned and fell in the water. Boulch, the patient, let go with his right hand, but, with the left arm he made a violent effort to hold it and, at the same time, to maintain his balance. He said he felt something give way in his arm and let go his hold.

The following was his state next day: No ecchymosis about the arm. The subject is thin and well muscled. At the juncture of the lower and middle third of the anterior surface of the fore-arm, there exists a round tumor in a state of repose, but whose transverse diameter becomes greater during the contraction of the anterior muscles of the arm. When the patient is ordered to bring his hand to his mouth, and his fore-arm is held to prevent it, the tumor becomes hard and lower down by several centimetres. The tumor is about six centimetres in all dimensions.

The author thinks that the rupture took place on a level with the insertion of the muscular fibres in the long tendon which forms this extremity of the muscle. The short head is not ruptured.

The case is curious because, it is a rupture of the biceps, which is a rare occurance; on account of the seat of rupture, on a level with the insertion of the fibres; on account of the absence of ecchymosis; and because diagnosis was so easy in this thin but muscular man.

All attempts at treatment have proven of no avail.—[*Journal de Méd. et de Chirurg. Pratiques.*

CONTAGIOUS PERIPNEUMONIA AND PREVENTIVE INOCULATION.—M. Leblanc declares himself opposed to inoculation and bases his experience upon a large number of observations. The following are his conclusions:

1. Contagious peripneumonia of cattle may develop itself spontaneously in certain countries, and under certain influences known for the last century.

2. The effects of inoculations present such variations as much in regard to evolution as to intensity and secondary accidents, that they cannot be regarded as analogous to those obtained in other diseases.

3. Inoculation with pulmonary serum does not provoke an analogous affection, even in an attenuated form, and in case of death, none of the characteristic lesions of the disease are present.

4. Inoculation, in many cases, is powerless to confer immunity even for a short time.

5. The preservative power cannot be longer than six months as the experiments in re-inoculation tend to show.

6. The strict execution of the measures prescribed by sanitary regulations would give as satisfactory results and less costly.—[*Paris Médical.*

POISONING FROM EUPHORBIA LATHYRIS.—E. Sudour and A. Caraven-Cachin were called to see a child aged 9, who had eaten the seeds of Euphorbia Lathyris. An astringent and opium treatment brought great relief. The two physicians then made experiments upon themselves with the following results:

1. The active principle contained in the seeds of Euphorbia Lathyris belongs to the class of drastic purgatives. It is unequally scattered in the different seeds, some being very poor and others very rich in it.

2. Vomiting almost alway precedes purgation even when taken in a small dose. Its action may manifest itself in forty-five minutes; but it may be greatly retarded and not show itself until three hours after ingestion.

3. The seeds act by producing an irritation of the mucous membrane of the digestive tract. This action is principally felt

in the large bowel and in the pharynx, as an angina, when mastication has being somewhat long.

4. In large doses this substance produces toxic effects, which may be divided into three periods: the first is that of chill (vomiting, diarrhœa,) the second, is excitation (nervous phenomena, vertigo, delirium,) and the third is that of reaction (heat, abundant perspiration).

5. Opiates constitute the best and most prompt means of combatting the ill effects.

6. The doses given in different works (6 to 12 seeds) are too high; in such quantity they might occasion extremely serious gastro-intestinal irritation. This substance, very active and difficult to measure ought never to be employed in medicine.—[*France Médicale.*

MICROBION OF DIPHTHERIA AND ITS CULTURE.—M. Talamon has succeeded in isolating the microbion of diphtheria in six individuals affected with membranous angina. He cultivated this microbion and inoculated rabbits who died, it is true, without presenting the characteristic lesions of the disease. But young cats having been confined in the quarters in which the rabbits had lived, after inoculation, contracted diphtheria and died of it. On postmortem examination, false membranes, presenting all the characters of the diphtheritic, were found in the pharynx, larynx, trachea and bronchi. On microscopic examination the same microbi were found.—[*Annales des Maladies de l'oreille etc.*

ENDOTHELIUM OF THE IRIS.—M. Quioc presented to the Société des Sciences Médicales de Lyon, histological preparations intended to demonstrate, by treatment with silver, the endothelium of the anterior surface of the iris. The specimens demonstrate the existence of this endothelium, which has been denied by some authors; it further shows that by its oak leaf shape, this endothelium is allied to that of the lymphatics, which fact is explained by M. Quioc, as being in consequence of the mobility of the iris.—[*Lyon Médical.*

THE VALUE OF DIFFERENT ANTISEPTICS.—Prof. Chirone, after having made a large number of spectroscopic observations on blood treated with different antiseptics comes to the following coclusions:

a. In order that the experiments may take place it is necessary that the antiseptic should not decompose the blood, as is done by sulphate of alumina, tannic acid, etc.; they must not give a special color to solutions and a spectrum of their own as permanganate of potash, sanguinaria, etc., do.

b. Spectroscopy has demonstrated that there are substances preventing final decomposition of the blood (antizymotics or antiputrids) and substances preventing its deoxidation (antireductives,) this being considered the starting point of the putrefaction of blood. Besides, there are substances having both properties.

c. There is not a constant relation between the antireductive and the antriputrid power of substances: thus, arsenious acid, which holds the first rank as an antizymotic, would rank last as an antireductive agent.

d. The substance exercising both actions is *par excellance* chloral hydrate.

e. Those opposed to deoxidation may be placed in the following order: 1. chloral; 2. quinine; 3. salycin; 4. berberine; 5. hypochlorite of soda and lime; 6. floridizzine; 7. esculine; 8. cinchonine; 9. cetrarine; 10. salicylate of soda; 11. strychnine; 12. caffeine; 13. sulphite of soda and lime.

These substances combine with the albuminoids of the blood and precipitate them; and preserve unaltered, for a greater or less time, the now precipitated part. They exercise their antireductive action on the blood, even when, having been absorbed, they are scattered in the circulation. Their action is more energetic the more fresh the blood is.

f. The substances which prevent final decomposition of the blood may be enumerated as follows: 1. chloral; 2. arsenious acid; 3. arsenite of soda. Boric acid, borate of soda and lupulin act in the same manner, but with very much less energy.—[*Réveil Médical.*

POLYP OF URETHRA IN A LITTLE GIRL.—M. Després had a little girl, aged 8, brought to his clinic at the Charité for a metrorrhagia. Upon examination, he found at the vulva a tumor as large as a filbert, which occupied the opening of the hymen and almost completely obliterated the urinary meatus. With the canula of a trocar and some silver wire, M. Deprés improvised a wire-loop with which he detached the tumor. It

proved to be cystic, containing black blood. It was evidently a vesicular, vascular polypus very rarely observed, up to the present, in France, as occurring in little girls.—[*Gazette des Hôpitaux.*

STERILITY IN BOVINE TWINS.—I thas been observed that when one of the twins is male and the other female, the latter is always sterile there being a mal-formation of the generative organs. The question has been asked whether the same condition of affairs has been noted in the human race under similar conditions.—[*Journ. de Méd. et de Chirurg. Prat.*

ARTICLE LXXX.

FROM THE SPANISH.

ALCOHOL AS AN ANTISEPTIC IN THE TREATMENT OF WOUNDS. By Dr. J. R. Sauri. [El Alcohol como Antiseptic en la Curacion de las Heridas. *La Emulacion*, Merida, Yucatan, July, 1881.] Translated for the JOURNAL. By JOSEPH WORKMAN, M. D., Toronto, Canada.

[CONCLUDED.]

As a rule I prolong the treatment by alcohol 12 to 15 days, and then I substitute cerate or glycerine; but in some cases I judge it well to continue it even a month, when there exists an indication for the prolongation, and the patient, or the hospital could bear the expense, which in itself is very heavy.

Some of my own observations and others recorded in the general hospital by my distinguished pupil, who is now the licensiato Severiano Gongora, will best show the good results obtained by this agent.

OBSERVATION FIRST.—Cutting off of the fingers, and division of the cubito-carpal left articulation. Recovery.

Francisco G., a native, aged 18, having, in dressing hennequen in a machine, imprudently exposed himself, was caught by the left hand, by the principal wheel, one of the blades of which

severed the four fingers, whilst another divided the articulation of the ulna with the hand, leaving the wrist only hanging by its articulation with the radius.

In spite of the indication given at first sight, to amputate in the lower third of the fore-arm, I decided to wait, and to join as well as possible the separated parts, and removing some splinters, I applied over the whole wound a large covering of folds of lint steeped in alcohol of 22°, sustained by a bandage. This simple application, renewed every day, and constantly kept moist with alcohol by the patient himself, sufficed not only to avert every trace of inflammation in the wounds, or of general reaction, but further to produce their rapid cicatrization, so that in 15 days they appeared covered with fleshy prominences without suppuration, and at the end of 38 days the patient found himself well, and was able to realize some movements of the hand.

OBSERVATION SECOND.—Fracture of the femur and tibia, subperiosteal resection. Cure. José G. Colli, native of Cansahcab, Yutcatan, aged 30, married, of good constitution, and by occupation a car driver, entered the general hospital of this city on 22nd December, 1879.

Two days before, whilst conducting a loaded car, he fell under the wheels, which caused a simple fracture of the femur in its middle part, and another double one comminuted and complicated with a wound in the second third of the tibia of the same side; the solution of continuity gave passage to the upper portions of this bone and of the fibula, over an extent of two centimetres.

At the time of our professional examination, the thigh was found swollen and the muscles were considerably retracted, from which it was impossible to attempt reduction; I therefore merely ordered fomentations with the tincture of arnica, and sub-acetate of lead, and internally 50 centigrams of Sulphate of Quinine. The wound was simply dressed.

On the day following I proceeded, with due caution to reduce the fracture of the femur, not succeeding without great difficulty because of the state of the parts. I applied three splints (*ferulas*) and a bandage and compress. As to the tibia, I extracted from the wound several splinters, and set right various embridlings on the margin, which were causing strangulation of the tissues. The wound was then washed with a strong decoc-

tion of bark, and covered with folds of lint steeped in alcohol of 21°.

On the succeeding days the state of the patient was satisfactory; due to the use of tonics, good diet, and special care bestowed on him; but his indocility in bed obliged me three times to coaptate the broken ends, which consolidated at the end of 20 days; I was unable to prevent over-riding, and in consequence there ensued a manifest shortening. In the mean time suppuration in the wound went on, and a month after the accident, the extremities of the bones fractured were seen uncovered; in consequence of which, as no other indication that could meet the situation, prevented, we proceeded to the surgical process demanded, in the following manner:

On the 25th of January 1880, after chloroforming the patient, in presence of my esteemed confreres Drs. Patson and Molina, and the students of the hospital, I made an incision of 12 centimetres in extent, from the lower border of the wound, uncovering the body of the tibia and the corresponding part of the fibula, carefully dissecting the periosteum over the whole circumference of the bone, till recognizing the presence of the unaffected texture, I placed a large grooved curved sound in the convexity beneath the bones, with the object of serving as a protection to the textures which I desired not to injure. By means of a thin bladed saw we took off a portion of the bone measuring eight centimetres, separating afterwards a fragment of the dissected fibula, by means of a strong pincers, thus adjusting the whole circumference.

The wound, after repeated washings with fresh water, was brought together by figure of eight sutures, and cleansing with decoction of bark was orderd, followed by the treatment with alcohol as before described.

I continued tne use of internal tonics. The general state of the patient improved in the subsequent days, so that at the end of twenty he had gained flesh, and the solution of continuity, now reduced, permitted the extremity of the bone, slightly necrosed, to be seen; gentle tractions with forceps detached the diseased part, and very soon the wound was covered with fleshy vegetations which brought about complete ciratrization. On 4th of April, two months after the operation, and three months and thirteen days after his entrance into the hopistal, this patient was discharged in the following condition:

There was continuity of the tibia and fibula in their whole extent, without any difference in the length of the two legs, measured from the rotular-tuberosity to the malleolus externus. There was no spontaneous pain, nor did pressure produce any. The limb, regarded in its entirety, presented a notable shortening, which was due to the irregular union of the fragments of the former, resulting from the indocility of the patient, as before mentioned.

OBSERVATION THIRD.—José Rupoto, Us, native of Abalá, Yucatan, aged 18, of good constitution, and by occupation a laborer, was brought to the general hospital on the night of 20th September, 1879. Through carelessness in working at henne-quen dressing, his right hand was introduced into the wheel with blades, which tore away all the upper limb as far as the scapulo-humeral articulation, carrying off besides the exterior third of the clavicle and the acromion process of the scapula.

The textures thus torn, left however a small portion of the skin of the anterior part of the thorax, hanging at the level of the insertion of the pectoralis major. On minute examination of this extensive wound, the axillary artery was observed at its origin, and a ligature of precaution was put on it; we then proceeded to adjust, as far as practicable, the contused soft parts; the extensive wound was wetted with alcohol, and the treatment with folds of lint steeped in alcohol, and retained by bandage, was pursued. Internally infusion of lime tree 120, with elixir of opium 2, two tablespoonful every two hours.

On the following day he was ordered, because of febrile condition 50 centigrams of Sulph. Quinine and barley water *ad libitum*. The application of alcohol was continued, taking care to keep the lint folds constantly moist with it, and to change them every 24 hours. On the sixth day small portions of liquefied muscle and sphacelated skin began to separate, and some small splinters came away. Quinine wine was ordered internally. On the 31st of October, 40 days after admission, the stump had completely cicatrized, and the patient was discharged.

In some cases in which we have been obliged to restrict ourselves to the adjustment of the wounds, the cicatrization has been tardy, and we have been much aided by several epidermic engraftments which accelerated the new formation of skin.

As we have said, previous to 1878, almost all patients undergoing amputations, perished by purulent infection and other accidents; we have now succeeded in reducing the mortality to such a degree that in the past year we have had in the general hospital 14 amputations, giving only two deaths, and in private practice 6 amputations, all ending well. In this year, up to the present date, we have had 6 amputations; 4 of the upper and 2 of the lower extremities, and we have not had to lament any failure.

It is true that we have procured improved hygienic conditions, but the alcoholic treatment has contributed highly to our success and we do not hesitate to recommend it to our confreres in the art, as well as to the proprietors of haciendas, in which the primary treatment generally falls on unscientific persons.

J. R. SAURI.

Mérida, June 1881.

Proceedings of Medical Societies.

Article LXXXI.

ST. LOUIS MEDICAL SOCIETY.

Necrosis of Mastoid Process.

Saturday, Oct. 15, 1881.

Dr. Pollak:—If there is nothing before the society, I will show some nice pathological specimens. I am sorry I can't give the early history of the case; I don't know it. A little girl about five years of age was brought to the clinic, with an affection of the ear. The face was distorted—drawn one side; there was suppuration of the ear, the meatus and also over the mastoid process. I examined it and found a fragment of bone which I detached, I also saw that there was necrosis of the bone, a portion of which came out. The helix was projected enormously, large quantities of pus came from the posterior portion of the helix. I could reach a part of the bone with my finger and removed it; I took a pair of forceps and removed another piece, then I took out still another piece, making three distinct pieces in all. The two first are clearly the mastoid process almost entirely; the third piece is the largest part, the bony part of the external meatus. The history of the case as I gleaned it is this: the child was first taken sick three years ago with a submaxillary abscess, on the left side I believe it was, and then afterwards an abscess formed on the right side. A large amount of matter constantly escaped from the ear. The physician in attendance told the parents that the child would be no better until the bone came out. What he meant I don't know, it may be the parents did not express themselves very well. They were not satisfied with that statement, and they went to another gentleman who has made otology a study, and he said there was a polypus, and that the ear wouldn't stop running until this was removed, but that as the child was so young, it would have to wait until it was seven years of age before the polypus could be removed. That is all I know of the history of the case. The

history as related by the parent. I believe both of these physicians were right. There had been a suppuration of the middle ear, with rupture of the membrane, and the drum head evidently was destroyed. I believe the gentleman was right who said there was a polypus, because polypi will always grow in this inflammation of the middle ear; but why it should not be removed until the child was seven years old, I don't see. I believe there are any amount of polypi in the cavity. While removing these bones, I put my little finger in and found the cavity smooth and soft. There was nothing rough about it at all. I took out a considerable quantity of polypi, but it bled freely, and as the child had to be put under the influence of an anæsthetic, in order to do anything with it, I desisted finally. I would like the members to see the specimen and tell me what it is. I really can not make it all out. There seems to be a portion of the promontory of the tympanum. I saw this child on Tuesday, when I removed these pieces of bone, and on Thursday the opening in the mastoid process had largely decreased, and the opening in the helix had subsided. I could pass a probe through the helix and it would come out at the opening in the mastoid process, or I could pass it through the opening in the mastoid process and it would come out at the helix. The opening in the helix has entirely closed, and that in the mastoid process has been reduced, and I have no doubt will cicatrize in a few days. It is very difficult to get the history of the case, as it seems the people lie willfully about it. The mother brought the child to me on Tuesday and told me it had been sick only a year; on Thursday the father came with it and said it had been sick three years.

DR. HURT.—What is the condition of the function of the organ?

DR. POLLAK.—It is most likely deaf, I can't tell. The child did nothing but scream, and I had to put it under an anæsthetic to get the bones out. Am satisfied it does not hear. The middle ear, the membrana tympani is destroyed. There is a slight devergent, strabismus of the eye on that side.

DR. STEVENS.—It seems difficult to form any conclusion as to this case without anything further in regard to it. It appears to me, however, that in this sequestrum of bone there is visible the

internal auditory canal, the internal meatus, the promontory of the labyrinth and semi-circular canals. I would not undertake, of course, to explain what is the cause of the whole difficulty. There must be a communication between the cavity of the cranium and this external opening.

Dr. Pollak.—I think not. I could pass a probe in the external meatus and it came out at the opening in the mastoid process, but it would not find its way up. The child has improved very much since I took the pieces of bone out. I could feel no rough surface with my finger.

Dr. Stevens.—I should like to hear Dr. Mudd as to the relation of the surface of the brain with the posterior portion of the petrous bone.

Dr. Mudd.—I should think it would not affect the brain.

Dr. Stevens.—Would the probe or finger or any other instrument pushing the dura-mater produce brain symptoms?

Dr. Pollak.—I couldn't exert pressure enough; I did nothing but dress it with absorbent cotton, and the child is doing remarkably well.

Dr. Prewitt.—I would like to ask Dr. Pollak what his prognosis is?

Dr. Pollak.—I think the child will get well. It is so much better since last Tuesday, that I think it will get well.

Dr. Prewitt.—I wish to say that it occurs to me that the dura mater is most likely exposed somewhere, and that the child's condition is a dangerous one, and the probabilities are that some day it will die of cerebritis. I have a gentleman under my care occasionally who has a destruction of the membrana tympani and suppuration of the middle ear. There has never been any necrosis that I know of, but polypi form and he has had an attack of what was called inflammation of the brain at one time, and he was dangerously sick. I didn't see him at that time, but he complains almost constantly of pain in the side of the head. He has dilatation of the pupil of the right eye, and I have predicted very confidently, that he will yet die of the inflammation extending to the membranes of the brain. I don't think there is much doubt he will die in that way. I think it is generally agreed that such cases are very dangerous.

DR. POLLAK.—I don't think there are any brain symptoms present. One side of the face is distorted, drawn towards the left, but I believe this is owing more to the infiltration. The lips are not disturbed. The whole side of the face is swollen and infiltrated, but I suppose when this has subsided, the face will be perfectly straight. If there were any signs of paralysis, I suppose it would be in the sixth pair, in the external rectus. The parents are very healthy looking people. The child has greatly improved, and it now eats, drinks and sleeps well.

DR. PREWITT.—It seems to me that it doesn't affect the prognosis exactly because the child is better. It would naturally be better after the removal of these necrosed bones, it doesn't argue that the dura mater is not exposed, and it doesn't prove that the child may not have an attack of encephalitis in the future, because we know the dura mater is very often exposed in trephining, it is exposed and the people get well after trephining, else we would never trephine. Moreover the fact that the dura mater is exposed doesn't necessarily imply that the patient must die immediately; nor is it necessary that these cases shall die very shortly; but as the irritation goes on, suppuration will go on, acute inflammation will be set up, which will extend to the membranes and the child will be very apt to die sooner or later of encephalitis.

DR. DICKINSON.—I concur with Dr. Prewitt's opinion, and more especially since, a few years ago, I had a case in which the membrana tympani was lost with very considerable inflammation of the middle ear. In order to arrive at the best results I asked Dr. Spenter to see the case with me, which he kindly did, and gave it as his opinion that the worst result might appear at any moment, and during our conversation he stated that he had six cases, during the preceding winter, in which the suppurative inflammation of the middle ear resulted in death.

DR. WILLIAMS.—These cases of suppuration of the middle ear are all dangerous. Of course, where the bones are not involved there is much less danger than there is where the bones are involved. Certainly where the bones are so extensively involved as they are in the case reported, there is great danger. As Dr. Prewitt says, the probability is that sooner or later the child will have brain trouble whether it will be carried away with it or not,

is uncertain. The child is evidently in great danger. Some years ago I lost a case in East St. Louis, from suppuration of the middle ear. A young lady 22 or 23 years old had a polypus growing from the membrana tympani, which destroyed her ear. I treated the polypus so as to destroy it, and the ear got well and remained so for some months. In the course of time however, the polypus substance grew again from the same point that it had grown from at first. I immediately began to treat it again. I treated it for some days, but it increased as fast as I could kill it, so that I began to suspect it was malignant. This was a mere suspicion however, and in the course of this treatment—under these circumstances the young lady had an attack of acute brain trouble—inflammation of the meninges of the brain which lasted for some 3 or 4 days, then she suddenly went into a comatose condition and died in the course of a few hours. So that all these cases of suppuration of the middle ear are dangerous, and more so when the bone is affected. When I lived in Cincinnati, I treated a gentleman from Covington, who had suppurative inflammation—suppuration from the drum cavity—which would come and go. It would discharge for some considerable time, and under ordinary treatment ceased to discharge. It would remain dry or well for some time and then come back, and run again, and again disappear under treatment. So it went on for some two or three years when he came to the office with a fresh attack of the trouble which, under the ordinary treatment, did not yield, and in the course of a few days the brain symptoms came upon him, which lasted a few days, terminating in a comatose condition and death in a short time afterwards. This child will, in all probability have brain trouble sooner or later. Some 3 or 4 years ago I treated a child in this city, under similar circumstances. The child had a mastoid abscess—it had scarlet fever, followed by this mastoid abscess with extensive necrosis of the mastoid process, and also of the bones of the drum cavity. I removed the entire external wall of the mastoid process with a large amount of irregular fragments of bone from the neighborhood of the drum cavity, and one of these little bones showed that the canal of the carotid artery had run through it. After I saw this, I was afraid to put my finger into the place for fear the artery would give way, and the child bleed to death. The child was not well when it went out of my hands. I presume it is suppurating yet.

DR. MUDD.—I don't like to trust my judgment on those bones, considering the history of the case as given by Dr. Pollak, and the absence of paralysis of the facial muscles. After examining the bones, as I have this evening, cursorily it seems to me that the canal of the portia dura, seventh pair of the face is here and is here intact, and if so the nerve must have been interrupted in its entirety, and paralysis of the muscles of the face must exist, if this be as I suspect. And again as Dr. Williams has just stated, we must have here a part of the canal of the carotid artery. I think the specimen is worthy of further examination, and of another report on some other evening. I think it would be well to have it examined more carefully. There is one point in connection with Dr. Prewitt's remarks that I would like to refer to, and in which most of the gentlemen have concurred, that the patient will sooner or later die of inflammation of the brain. This is certainly a probability, perhaps more than a probability, and yet it does seem to me that the greatest danger from such an inflammation has already passed. The greatest danger from such an inflammation was, at a time when the membrane was attached to the bone; was at the time when this bone was becoming necrosed; was at the time when the membrane was not protected by adventitious tissue which has, doubtless, already covered it; was at the time when this bone was connected with the arteries, with the vessels, with the nerves, before this protecting adventitious tissue had been formed to protect the membrane from any such inflammation. If inflammation is set up, I think it will be because the external opening heals more rapidly than it should, and leaves a pocket inside which becomes a nidus for this inflammation. It seems to me that one point of great moment in the case is to keep it open long after the discharges have become almost nothing. I hope and believe that Dr. Pollak's prognosis of this case is a good one —that the child will probably get well. Certainly, as it has escaped so long, there is at least a possibility for it to get better.

DR. WILLIAMS.—I treated a boy this Summer, for double otorrhœa, where the membranes were both completely destroyed and the little bones also, so far as I could judge. One side of his face became paralyzed, not completely, but the whole portion of the face, supplied by the facial nerve was more or less paralyzed. The bones had become involved in the suppurative

process—involving the canal through which this nerve runs. I had an opportunity to observe the case a short time only. He went out of my hands, and I have not seen him since. I was rather glad that he ceased to call, as it was an unpromising case and liable to die at any time.

Dr. Dickinson.—For the encouragement of Dr. Pollak, I may say I saw a case some years ago—a boy five years old who, his mother said, had been subject to otorrhœa ever since he was an infant, and during that time it seems little bones had escaped which were thrown away. The suppurative process subsided and the opening closed, forming a cul-de-sac three-quarters of an inch deep. It was entirely cicatrized—closed.

Dr. Rumbold.—Did I understand Dr. Pollak to say that there was no facial paralysis?

Dr. Pollak.—Not that I can see. One side of the face is drawn over, I presume it is owing to the other side being swollen and pushing it over.

Dr. Rumbold.—If the internal meatus, through which passes the portio dura, has been destroyed, then of course the facial nerve is destroyed, and paralysis of the side of the face must ensue. If there is no paralysis, then we have mistaken the position of the bone placed before us.

Dr. Dickinson offered the following resolution which was adopted by a vote of the members present:

Whereas: The surgical treatment of our late President James A. Garfield has been, through the public prints, the subject of severe aminadversions and adverse criticisms, the tendency of which is to asperse the fame of the eminent gentleman who directed that treatment

Therefore, to the intent of assuring these gentlemen, *our professional brethren* of our moral support, and by our voice, of rendering nugatory as far as we may, the effect of these unjust aspersions, be it

Resolved: That the St. Louis Medical Society hereby, unanimously testifies to its constant approval of the wisdom and fortitude that resisted the public clamor for the adoption of *useless*,

dangerous and meddlesome surgery, in demanding "instant search for and removal of the mortal missile"—which wisdom has been triumphantly vindicated by the autopsy made and officially announced.

This Society also expresses its admiration of the vigilance that timely detected imminent complications, and of the skill which averted their immediate consequences; and endorses the surgical and regiminal measures pursued throughout (as publicly reported) in the sustained endeavor to conduct to a favorable termination the issues of that protacted life-struggle, and also commends the great prudence which ever invested the prognostic utterances, eagerly sought for and given to a sympathizing world.

And though, in the unequal encounter with death, the manifold agencies of medicine and surgery and the unwearied ministrations of loving friends were not ultimately blessed to the restoration of our chief magistrate, this Society hearily records its united testimony that this distinguished life, thus imperiled, could not have been confided to a *council* of medical men, more sincere in purpose, more acute in foresight, more wise in council or more skilful in execution.

Resolved: That a copy of this action of the Society, duly attested, be transmitted to the several gentlemen composing the council referred to in the above.

SATURDAY, October 22nd, 1881.

Ear Cases.

DR. WILLIAMS.—In connection with the case presented at the last meeting by Dr. Pollak, I wish to submit a few specimens of a similar character, with very brief statements of the facts in connection with the cases. Some two years ago, a six year old boy of Dr. Gibson of Topeka, Kansas, had scarlet fever and in connection with the scarlet fever he had double mastoid abscess; that is to say an abscess in each mastoid process. As a result of that trouble these bones were taken from the mastoid process sometime afterwards. They are large, ugly, rough specimens of bone that came from the two mastoid processes, but there is nothing particularly interesting about them. I simply exhibit them to show the amount of damage that can be done by ne-

crosis. The boy was extremely sick. For several days he was not expected to live, and in consequence of that uncertainty as to life, the mastoid abscesses were not treated as they should have been. They were neglected somewhat, so the father told me, and not opened as early as they should have been. The boy rallied however, after some days and by this time the abscesses had opened spontaneously, and when I saw the child sometime afterwards I removed these pieces of bone from his ears. The final result was that he lost his hearing in both of his ears. He is in good health but is absolutely deaf.

Some years ago a little German child of this city, two years old, was brought to me by its mother. It had either measles or scarlatina, and following that a mastoid abscess developed in the left ear. This abscess was treated by a prominent physician of this city at that time and, strange to say, he was extremely careless in regard to the management of the case—at least of the mastoid abscess. The child was extremely sick, and the mother told me that it was in spasms for six or seven days, every moment of which time she expected it to die. She said the side of the head grew to immense proportions and matter came out from the mastoid abscess, and burrowed under the skin of the scalp and face, so that the skin was pressed outwards and made an immense swelling on the side of the face and head. The mother told me that she begged the doctor to open the abscess but, he said it was better to let it alone, and let it break of itself. He kept poulticing it, until it finally broke of itself, and relieved the child of the spasms. Sometime afterwards the child came into my hands, and I found an extensive necrosis of the bones. You will notice that the whole outerplate of the mastoid process has come away, and in connection with it several smaller pieces of bone have been taken away from the parts deeper down. The most interesting thing in regard to the bones, is that one piece has what seems to be the canal of the carotid artery running through it. I don't know what other canal it could be. The parts involved, and the appearance of the bone seem to show that it is the canal of the carotid artery, at about the point where it makes a bend. The hearing in this ear was lost. After a few months this child went out of my hands. The mother called to see me during my absence from the city, and I afterwards learned that she went to see Dr. Gregory at the hospital, and afterwards went to see Dr. Hodgen. Dr. Hodgen

told me that he gave the child chloroform, and removed a very large piece of necrosed bone from the same ear which he took to be the lower portion of the petrous portion of the temporal bone. He said that it frightened him when he saw the size of the bone that he was drawing away from the child's ear. He feared that the child would die. During the past summer the mother called at my office without the child to ask me something about the case, and stated that the child was still troubled with a discharge from the ear, though it was quite small. Exactly what condition it is in, is more than I can say, as I didn't see it. I urged upon the mother, the propriety, of removing the spiculæ of the necrosed bone with a view of saving the child's life. It is liable to take meningitis, or some cerebral trouble at any time and be carried away very rapidly. The proper treatment of these mastoid abscesses which was singularly neglected in both of these cases, is to open the abscess just as soon as the diagnosis can be established, and before the suppuration has set in. It is not proper to wait until the suppuration has started so as to open the cavity of the mastoid cells.

DR. HURT.—I would like to ask the doctor if it is his experience or not, that these abscesses usually have their origin in an acute otitis?

DR. WILLIAMS.—They usually start in connection with otitis media, that is acute inflammation in the drum cavity.

DR. HURT.—The treatment to begin with then, would be the treatment usual in acute inflammation of the ear?

DR. WILLIAMS.—That is to say before it gets to be mastoid abscess.

DR. HURT.—Before it is an abscess, could it not be arrested by leeches or some other application?

DR. WILLIAMS.—That is very true, but I was speaking of the case after it had became mastoid abscess. The proper treatment then is to open it as soon as possible.

DR. POLLAK.—Mr. President, before we adjourn, I would like to hear the result of Dr. Mudd's examination of the specimen which I presented at the last meeting.

DR. MUDD.—I found in the specimen a portion of the auditory canal. There is a portion including the ring to which the

membranes are attached, a part of the mastoid cells, and the greater portion of the petrous portion of the temporal bone including the semi-circular canal, the cochlea, the inner wall of the tympanic cavity; it includes part of the canal of the carotid artery, part of the jugular fossa; and, of course it includes the internal auditory meatus. The bone is from the left side.

Dr. Pollak.—I will say that I have seen this child three times since last week. I saw her to-day. The child is doing remarkably well. The opening in the mastoid process is entirely closed; nothing comes out any more. But there is certainly a paralysis of the left side of the face. Her general health is good. She had been confined to her bed for about a year, but since the bones have been removed, she has recuperated. She now runs about all day, jumping ropes and so on; eats, drinks and sleeps well. Her general health is excellent in spite of the prognosis of Dr. Prewitt, that she would probably die very soon. The symptoms have all subsided except the paralysis.

Dr. Dickinson.—How are the eyelids?

Dr. Pollak.—Perfectly sound. She moves the eyes in every direction and sees well. The eyelids are not in the least tumefied.

Dr. Stevens.—There must be entire destruction of the portio-dura and paralysis of the muscles supplied by it? I can't conceive how the internal meatus can be removed entire, as in this case, without destruction of the trunk of the nerve.

Dr. Williams.—I would like to ask Dr. Pollak if he considers the child out of danger?

Dr. Pollak.—That is a different thing. I only say the child, at present is well. I think probably the dura mater is sound; possibly some osseous material may be so deposited as to protect it. I can't say she is out of danger of course. She looks perfectly well.

The Germ Theory.

Dr. Spinzig.—Mr. President, I announced on last Saturday evening that I would criticize Professor Pasteur's article which was read before the International Medical Congress, and I do so because I think the views he presented are erroneous, and further, because they were acceded to by all the members

present, numbering some 3600, and representing the profession in all parts of the world. The question he discusses is infection, and the prevention of infection. I have here a translation of his paper in English, here is a German translation, and here is the original in French. I submit them for consultation.

Now Prof. Pasteur went on to state that there is a disease called chicken cholera—whatever the nature of that disease was, what the causes of it were he does not attempt to say. He took it for granted so far as we perceive from his statements, that it was an entity—an ontological something requiring no other inquiry as to its origin or to its nature. Then again this would supply an antidote which counteracts the effects of the original poison, according to its potency. Now what this antidote is he gives us no explanation, except that he calls it little organisms designated microbes. He brings nothing to support his theory of bacteria or the product of retrogressive metamorphosis, but we must take it for granted that these organisms which constitute his antidote are also specific somethings. We need not inquire into the origin and nature of the fever either. So that the propositions placed before the Medical world are, first, to recognize the specific nature of cholera and its capacity of spreading, according to the virtue of the specific poison, and second, that the specific antidote is, when employed, capable of subduing the cholera poison.

What the laws of the nature, or of the natural occurence of the poison, or of the antidote are, need, therefore, not be understood. Thus a dogma—a proposition in the form of a belief is submitted to the medical profession to which we have to accede blindly. This is not admissible and consistent in medical science. I wish to introduce as to the two positions, a few remarks. In the first place, we find that cholera spreads and extends over large surfaces of the globe. I will here submit a pathologico-geographical atlas, showing the areas where cholera prevails. There, for instance, is nearly the entire territory of Europe in which cholera is liable to prevail. Of Asia there seems to be the southern half liable to it. In America we have the United States, Central America and of South America the equatorial part. Towards the south pole and from the Canadian line to the north pole, there is no cholera. There is no cholera in Africa, except Egypt, Zanzibar and Algiers, neither in northern Asia, and Australia. So we find with a very limited exception that there is a

limitation of it, to a certain area. Now there is one point of great interest, if it was specific and could determine its diffusion, it would not be forced or needed to avoid certain localities, it could go wherever it pleased. But such is not the case. Then we have a limitation and particularly with regard to altitudes. We find that cholera cannot ascend above certain heights. For instance, in India, cholera doesn't ascend higher than about 4,000 feet; in Switzerland no more than 2,000 feet. We have for instance, Munich in Germany 1500 feet above the level of the sea, yet liable to be visited by cholera and not very far from this city, the cities of Insbruck and Salzburg, both of which are of higher altitude and neither place is visited by cholera. Salzburg is a military post; thus the population is constantly changing, and if there was any cholera, it should have been carried there; nevertheless, cholera doesn't spring up there. Then we find in the diffusion of cholera, that there are certain regions where cholera cannot spring up, in which cholera has never yet visited, viz:the catarrhal region.

In the dysenteric region and the entero-mesenteric region, cholera is indigenous. There are also variations in the altitudes to which these regions extend. If we take the measurement of the altitudes of the dysenteric region at the equator we find that it extends nearly 8,000 feet, and the entero-mesenteric to over 11,000 feet. Higher up is the catarrhal region in which cholera doesn't occur. If we trace this through all the continents, we find that the law holds good everywhere, as is illustrated by the cities of Munich and Salzburg. Munich is much lower and is liable to be visited; Salzburg is not liable to be visited, owing to its being nearer the catarrhal region. Now where the line between the entero-mesenteric region and the catarrhal region, unite at that degree of altitude, the diseases of the variety of cholosis will cease to be. We find however, that Archangel has been visited by cholera and as it is on the other side of the line of the catarrhal region it would, geographically viewed, constitute an exception. When, however, I traced up the area of yellow fever, I found that Swansea, England, at 51° north latitude, has the same isothermic line as Baltimore which is about 39°, and that Archangel is that of Quebec, 40°. So that the law holds good, that cholera can only prevail in the dysenteric and entero-mesenteric regions, and not in the catarrhal. Therefor the specificity, by which I understand the power which a

body has to determine its own existence anywhere, to resist all laws of nature going to influence it or anything that tends to kill or remove it, or oblige it to obey the laws of distribution of disease upon the earth's surface, the law of chronology. There is no evidence produced sustaining the admission of the specificity of cholera.

We find that Prof. Pasteur in his argument does not mention anything of the effects of the disease. He says it is produced by a specific virus, and the only remedy necessary against it is the antidote of the "attenuated virus," properly applied.

He made the assertion that all of the so-called virulent diseases are produced by a virus of the same nature as that which occurs in the chicken cholera, and inferred that they could be prevented by the same procedure by which he claims to prevent chicken cholera. Chicken cholera was the particular disease that had been studied, and from the results of instituted experiments, the inference was claimed sustained that by vaccinnating kindred species with the attenuated virus, protection against future infection would be afforded; and as equallly valid, the inference was applied to all that were termed "virulent diseases."

This announcement was made to the medical representatives from nearly all parts of the world, and to bring the newly discovered fact to a general understanding.

Prof. Pasteur, therefore did not care anything as to the cause, chronology, or diffusion of cholera in space; he did not care —anything about the sanative effects of his antidote. To him it is sufficient to know that, (as is claimed) it subdues cholera. Now he advises the farmers of France to vaccinate their sheep to prevent them taking the anthrax—the so-called splenic fever—and asserted that if the sheep were properly vaccinated with the antidote, they were not taken with the disease, and that if affected by it, the disease would be slight; that they would live, while others would die. Now as we know this splenic fever only prevails where there is low ground—what we would call bottom ground—the sheep that are fed and shepherded on such ground will take this disease, while those that are shepherded in lofty regions never take it. But he had perfect confidence in his antidote and submitted it with such reliance that he asserted, if they were properly vaccinated, it does not make any difference where they were, because specific poison couldn't reach them. In Germany they found that this was not the case.

Another point arises that interests us very much; that is, he doesn't give us any explanation of what microbes and their organisms are, and what constitute their specific power, or what their nature is, in what way, or by reason of which they can act as an antidote against cholera. If we make any slight attempt even to nnderstand what these bodies are, and why they exert an influence, we find that they fully compare with the ordinary yeast cells. All the sporules that are found are commonly found in retrogression, and these sporules are escaping by myriads in the liqnid examined under the microscope, during action, and they correspond precisely with the action of the yeast cells. They simply exert an influence when they are brought into proper compounds, a fluid containing albuminous, starchy or saccharine substances, if the temperature is but little elevated, then the fermentation goes on very slowly. The same phenomena we observe in the brewery, what they call low fermentation. Now if you apply an increase of temperature, then there follows a violent fermentation. It is not from the specific nature of these things that fermentation occurs, but merely from the fact that they absorb oxygen from the air. It has been stated by a very high authority, Hermann, a professor of physiology, who has recently published one of the most extensive and reliable works on physiology, that if you take what they call zymogen, a substance which has hardly any capacity of producing fermentation, or amounting almost to nothing, so that zymogen may be regarded as a non-fermenting substance; but if you increase its proportion of oxygen by absorption, you produce trypsine, which is one of the most powerful ferments. Now this effect is prodnced by nothing else than the simple process of oxydization, the absorption of oxygen will increase the process of fermentation and to the liquid in which the fermentation transpires, or bearing this process, it may be extremely dangerons. Suppose the fermentative process should transpire within the organism, it would coagulate the blood and life would, undoubtedly, cease at once. The action proper of the microbes of Prof. Pasteur is dependent precisely on the same principle. So that we see that their action is nothing else than simple oxydization, and oxydization when "protected" (vaccinated) or "exposed," is brought under the necessary conditions, elevation of temperature and an exces of smoisture. The law applies to the phenomena as submit-

ted by Prof. Pasteur, hence the specificity in that direction is paralleled by a simple physical operation.

I must again refer to the distribution of cholera, as I had taken the liberty of presenting to the society, some time ago, a chart in which the city of St. Louis was drawn, showing the parts in which, in 1866, the cholera prevailed most extensively, adverse to the theory of Prof. Pettenkofer, namely, that its prevalence was not due to the stage of sub-surface water. Now we find that where the sub-surface water is very close to the surface, cholera also prevailed, so that the evaporating surface was very little. It was also found that cholera most entirely prevailed in tenement houses, filthy and without ventilation. Where there were wholesome beds, good ventilation and proper habits of living, cholera did not prevail. This was illustrated in 1866 by the fact that the region of the city from Chestnut Street north, to Washington Avenue, and from Fifth or Sixth Street westward, was free from cholera; while from Washington Avenue to Cass Avenue, and from the river to Jefferson Avenue, you found that cholera prevailed. If you go westward the formation and level of the soil is the same, whether it is Olive Street, Washington, or Cass Avenue, so that the only difference is in the population. But Pettenkofer's theory, that by evaporation of sub-soil water, or subterrenean moisture, was the specific poison of cholera, reproduced was by all evidence fully disproved, and so it will be with the theory of Pasteur's poison. He says when a flock of sheep died from splenic fever, and were burried, and other sheep were grazing on the same gronnd, they would die, even when grazing there several years afterwards. Now this is a gross delusion.

DR. DICKINSON.—I would like to ask if the prevalence of cholera in the districts you have mentioned was not attributed in great measure to the wells that were sunk in these parts and the use of this water. It is my impression that this was regarded as the cause more than the moist soil.

DR. SPINZIG.—Dr. Murchison's rules with regard to the prevalence of typhoid fever, suggests the idea that it was due to drinking well water. Cholera prevailed in districts where these wells were not found.

DR. DICKINSON.—I remember that these wells were suppressed by the city authorities.

Dr. Spinzig.—The cholera was not more severe where they did use it then where they did not use it. Now with reference to small-pox. Prof. Pasteur's inference is, that if these poisons are properly attenuated and the animals vaccinated, the disease will be prevented. This applies also to small-pox. We find with reference to the spreading of small-pox, that the same law holds good as we have here illustrated with regard to the spreading of cholera in St. Louis in 1866. Now with reference to the prevention of it, or the power ascribed to vaccination with attenuated virus, Prof. Pasteur has great confidence that the farmers can drive their sheep, if they are vaccinated, to the unhealthy ground; they won't take the splenic fever, but if so, the same will not apply to small-pox vaccination, as the statistics which have been collected by Prof. Kolb show. He has collected facts from various localities, and statistics have been kept very strictly and explicitly in every point, he found that those persons who took small-pox were those who had been vaccinated. It would seem that those who were not vaccinated, were protected, at least that vaccination was no guard against the occurrence of the disease.

I will not detain you much longer, but will simply refer to one point. I must express my sentiment of sorrow, that one of our most distinguished writers, an authority that I received with the greatest respect and unbounded confidence, because so far as he has led us in pathological science, he was a most reliable authority. I refer to Prof. Cohnheim, the gentleman who first gave us the true theory of the formation of pus. Now that was one of his great achievements, the discovery that the white blood corpuscles were transformed into pus. I always considered him a watchful man, one who relied upon his own capability to investigate and understand, but now I find he has also become untrue to himself, that he has gone over to the encampment of those who believe in the specificity of so-called infectious diseases, so that he now says that these diseases will occur by infection; that the infectious substance must be brought to the locality and that it may be prevented by what is called the antidote. Not that we can come to a better scientific understanding, but simply that we must submit to an implicit faith, we must believe. We must hence exclude science from medicine, and simply make it a doctrine in which we can believe and don't need to investigate. Dr. Senator, of Berlin, holds that fever results from metamorphosis of the tissues which is produced by chemical action of

chemical substrata, so that "infection" is not simply a specific something that we cannot understand, cannot make out, but a chemical substratum. This great author, however, must admit the statement of Dr. Senator, although he has become a convert. The fact cannot be contradicted which shows that Prof. Cohnheim is inconsistent. He says: "Cholera will visit no city unless some person suffering from cholera has been there previously, who has imported it, deposited it, and then cholera has the power to spread according to its own option."

DR. DICKINSON.—How does it have its begining?

DR. SPINZIG.—That we are not at liberty to inquire. He won't allow that. It is sufficient to suppose that it is imported When I was quite sick this summer and couldn't leave my office a lady in my practice sent for me to come and see her immediately, but as I couldn't go, some other physician was called in, and the case diagnosed cholera. When subsequently I saw her, I made inquiry as to how she got along, and she then gave me the following history: she had violent cramps, vomiting, and had turned blue, and had all the peculiar symptoms of cholera. That happened this summer, and there has been no cholera here so far as I know, and yet this was a true case of cholera. It shows that these diseases will occur when the conditions are favorable, but I do not think it is produced by a specific contagion.

DR. A. GREEN.—Doctor, will you allow me to ask you a few questions in order to make your meaning clear? Do you mean that when a man has small-pox, and another contracts a disease from him, it may be smallpox, measles or scarlet fever, is that so? Do all the poisons arise from the same thing? For instance, if one person has sexual connection with another, he may get spyhilis, while another person may get small-pox from the same woman, is that so?

DR. SPINZIG.—I will state that so far as scarlatina and variola are concerned, they arise from the same causes.

DR. A. GREEN.—Measles, scarlatina and variola arise from the same causes. If a man comes in contact with a person having scarlatina, he may get small-pox, or he may get measles? But how about syphilis, Doctor? Is not syphilis also related to small-pox? Can't a man get the big pox from the small-pox?

DR. SPINZIG.—That was not involved in the question.

Dr. A. Green.—But I don't see why not. I only want to make the matter clear. Is there any such thing as contagion?

Dr. Spinzig.—There is transmission, but I do not accept the terms infection, or contagion in the way it is employed. I say there is no contagion and no infection.

Dr. A. Green.—But there is a transmission?

Dr. Spinzig.—Yes, sir.

Dr. A. Green.—You take a patient who has small-pox and inoculate another person and that will produce either general or local disturbance, but may not your patient have scarlatina?

Dr. Spinzig.—Why not?

Dr. A. Green.—And scarlatina may communicate measles or small-pox or big-pox? There must be some difference between syphilis and small-pox.

Dr. Spinzig.—I don't accept the term, specificity, neither do I accept the term infection.

Dr. A. Green.—Well, say transmission then. I want to know if the effects it transmits are specific or not. If a man has connection with a woman under certain conditions, he gets the big-pox; now may he also get the small-pox or measles? If not there must be a specific poison.

Dr. Johnston.—Mr. President, I will read what Prof. Pasteur says, before I make any remarks. I will read this, and I suppose it is a true translation.

"The subject of my communication is vaccination in relation to chicken cholera and splenic fever, and a statement of the method by which we have arrived at these results, a method the fruitfulness of which inspires me with boundless anticipations. Before discussing the question of splenic fever vaccine, which is the most important, permit me to recall the results of my investigations of chicken cholera. It is through this inquiry that new and highly important principles have been introduced into science, concerning the virus or contagious quality of transmissible diseases. More than once in what I am about to say, I shall employ the expression, virus culture, as formerly, in my investigations on fermentation, I used the expressions, the culture of milk ferment, the culture of butyric vibrion etc. Let us take,

then, a fowl which is about o die of chicken cholera, and let us dip the end of a delicate glass rod in the blood of the fowl with the usual precautions, upon which I need not here dwell. Let us then touch with this charged point, some *bouillon de poulet* very clear, but first of all, rendered sterile under a temperature of 115° Centigrade, and under conditions in which neither the outer air nor the vases employed can introduce exterior germs, those germs which are in the air, or on the surface of all objects. In a short time, if the little culture vase is placed in a temperature of 25° to 30°, you will see the liquid become turbid and full of tiny microbes, shaped like the figure 8, but often so small that under a high magnifying power, they appear like points. Take from this vase a drop as small as you please, no more than can be carried on the point of a glass rod as sharp as a needle, and touch with this point, a fresh quantity of sterilized *bouillon de poulet* placed in a second vase and the same phenomenon is produced. You deal in the same way with a third culture vase, with a fourth, and so on to a hundred, or even a thousand, and invariably within a few hours the culture liquid becomes turbid filled with the same minute organisms. * * * * * Let us now repeat exactly our successive cultures with this single difference, that we pass from one culture to that which follows it, from the hundredth to, say, the hundred and first, at intervals of a fortnight, a month, two months, three months or ten months. If, now, we compare the virulence of the successive cultures, a great change will be observed. It will be readily seen from an inoculation of a series of ten fowls that the virulence of one culture differs from that of the blood and from that of a preceding culture, when a sufficiently long interval elapses between the impregnation of one culture with the microbe of the preceding. More than that, we may recognize by this mode of observation that it is possible to prepare cultures of varying degrees of virulence. One preparation will kill eight fowls out of ten, another five out of ten, another one out of ten, another none at all, although the microbe may still be cultivated. In fact, what is no less strange, if you take each of these cultures of attenuated virulence as a point of departure in the preparation of successive cultures and without appreciable interval in the impregnation, the whole series of these cultures will reproduce the attenuated virulence of that which has served as a starting point. Similarly, where the virulence is null, it has no effect. How, then, it may

be asked, are the effects of these attenuating virulences revealed in the fowls? They are revealed by a local disorder, by a morbid modification more or less profound in a muscle, if it is a muscle that has been inoculated with the virus. The muscle is filled with the microbes which are easily recognized, because the attenuated microbes have almost the bulk the form and the appearance of the most virulent microbes. * * * * * *

"In this new investigation, I have had the assistance of two devoted young savants, M M. Chamberlain and Roux. At the outset we were met by a difficulty. Among the inferior organisms, all do not resolve themselves into those corpuscle germs, which I was the first to point out as one of the forms of their possible development. Many infectious microbes do not resolve themselves in their cultures into corpuscle germs. Such is equally the case with beer yeast which we do not see develope itself usually in breweries, for instance, except by a sort of scissiparity. One cell makes two or more, which form themselves in wreaths; the cells become detached, and the process recommences. In these cells real germs are not usually seen. The microbe of chicken cholera and many others behave in this way, so much so that the cultures of this microbe, although they may last for months without losing their power of fresh cultivation, perish finally like beer yeast which has exhausted all its aliments. The anthracoid microbe in artificial cultures behave very differently. In the blood of animals, as in cultures, it is found in translucent filaments, more or less segmented. This blood or these cultures freely exposed to air, instead of continuing according to the first mode of generation, show at the end of forty-eight hours corpuscle germs distributed in series more or less regular along the filaments. All around these corpuscles matter is absorbed, as I have represented it formerly in one of the plates of my work on the diseases of silkworms. Little by little all connection between them disappears, and presently they are reduced to nothing more than germ dust."

I have asked farmers what were the symptoms of chicken cholera. Was it excessive purging? No. They sicken and die. I have asked farmers what constituted hog cholera. Was it purging or vomiting? No; it was an inflammation of the glands of the neck, causing suffocation. I asked a brother of mine who raised a large number of hogs, what the symptoms were, and he said he found an abscess around the glands of the neck. So that

the diseases termed chicken cholera, or hog cholera, are not similar, and have no symptoms like cholera in the human being.

My friend tries to conclude that Pasteur has really developed regular Asaiatic cholera, such as we have in human beings; now we have no evidence in this article of Pasteur's of that fact. He says: "May we not be here in presence of a general law applicable to all kinds of virus?" Malignant pustules and other affections may be dependent upon some microbe or some low organism allied to microbe.

Autumnal fever and typhoid fever may depend on such a cause as this, but as yet Pasteur has not stated that. He is still in the field of investigation. Now if this law is proved to be true we can use our disinfectants and antidotes scientfically. If we can get where Pasteur has got and discover the cause of disease, then we can apply scientific remedies.

DR. SPINZIG.—So far as Dr. Johnson states, his observations in reference to the remarks I made, it seems that I have conveyed a misunderstanding in some respects; I did not charge Prof. Pasteur with making any statements with regard to the nature of cholera, or the so-called fermentative diseases; but the inferences I made were based upon the statements made by Prof. Pasteur which were sufficient for us to take it for granted that he considered these diseases specific and that they could be prevented, by a specific antidote, and I saw that it is just the very thing the sanitarians want, and are even waiting for an opportunity of this kind because the statement of Prof. Pasteur will justify their measures, it makes no difference how improper they may be. They will advance this as the most probable indication of the propriety of their measures. It is therefore the duty of all who are engaged in the practice of medicine or the study of medicine, to investigate these matters, to dilate upon them so as to bring them to a clear understanding, because so far as the statements are concerned, they tend to justify those preventative or prophylactic means that are usually recommended by sanitarians and health authorities, the arbitrariness of establishing quarantines and military cordons, the incineration of cities, villages and houses, the dislodgement of parties from their own dwellings and dragging them like criminals to a quarantine hospital, and so on.

Now all these privileges that they esteem they will base

upon the statement of Prof. Pasteur as one of the most beneficial and justifiable, and therefore we should have a correct idea as to the processes of nature. We must say whether we can feel contented with the explanation that a specific body which no one can analyze is the cause of disease or is the preventative of disease, and beyond this nobody can go—Pasteur didn't go beyond it. He doesn't inquire what the microbe is. He thinks it is the cause of disease and by this microbe he prevents these things, cholera, splenic fever, small-pox and so on.

Saturday Oct. 29th, 1881.

Correspondence.

To the resolutions passed by this society on October 15th concerning the treatment of the late President Garfield the following replies were received.

1321 F. St. N. W.
Washington, D. C., Oct. 21, 1881.

A. H. Ohmann-Dumesnil, M. D.
Recording Secretary St. Louis Medical Society.

Dear Doctor.—It was with great pleasure that I received this morning, the very kind and complimentary resolution passed by the St. Louis Medical Society.

I need not dwell upon the hard and bitter struggle we passed through in endeavoring to save the life of our beloved President, and it is very gratifying to us to receive the sympathy and endorsement of our professional brethern. Thanking you and the Society most heartily, I remain

Yours Respectfully, Robert Reyburn, M. D.

Philadelphia, 1611 Chestnut St.
Oct. 20th., 1881.

To Dr. A. H. Ohmann-Dumesnil,
Secretary of the St. Louis Medical Society of Missouri.

Dear Doctor.—I am in receipt of a copy of the resolutions passed by your Society, touching the professional management of the case of the late President Garfield. It is to me a source of great pleasure to know that the surgical treatment of the distinguished patient, has received the endorsement of a body of

prominent physcians and surgeons, such as compose the St. Louis Medical Society of Missouri.

I was never in the least disturbed by the criticisms which were so freely indulged in by the press, nor by those which emanated from a few members of my own profession. Nor did I ever, for one moment, entertain a doubt that the course pursued by the medical attendants was not based on the soundest principles of surgery.

I beg you will convey to the members of the Society which you represent, my high appreciation of the kind and complimentary manner in which their resolutions of approval have been framed.

Very Respectfully Yours, etc., D. HAYES AGNEW.

Washington, D. C., Oct. 24th., 1881.

To the St. Louis Medical Society of Missouri.

GENTLEMEN:—In response to the resolutions so kindly sent, under date of Oct. 15th., containing so full and hearty recognition of the loyalty of the work done in the case of our dead President, I can only say that I thank you from my heart.

At another time I may have something further to send you.

Very truly your obedient servant, D. W. BLISS.

War Department, Surgeon General's Office,
Washington, D. C., Oct. 25, 1881.

Dr. Ohmann-Dumesnil,

DEAR SIR:—I have just received yours of Oct. 15th., with the resolutions of the St. Louis Medical Society, and beg you to assure the Society how highly I value this token of their appreciation of the conduct of the physicians in attendance upon the late President Garfield.

Very respectfully, J. J. WOODWARD Surgeon U. S. Army.

War Department, Surgeon General's Office.
Washington, October 26th., 1881.

Dr. H. H. Mudd,

President of the St. Louis Medical Society of Missouri.

Allow me to express my sincere gratification at receipt of the copy of resolutions adopted by the Society on the 15th inst., you have been kind enough to transmit to me.

Its endorsement and approval of the course pursued in the case of the late President Garfield, is not only most gratifying but very valuable to me, as such ample vindication relieves all necessity for any personal protest against malign and unfair criticism.

Gratefully yours,
J. K. Barnes.

Newark, 43 W. 32, Nov. 4, 1881.

A. H. Ohmann-Dumesnil,
Secretary St. Louis Medical Society of Missouri.

My Dear Sir:—Permit me through you to thank the St. Louis Medical Society of Missouri for its action, recently communicated to me, expressing approval of the course pursued by myself and my associates in the treatment of our late President. After the approval of my own conscience, there is nothing I value so much as the approbation and support of my professional brethern; but I think the character and tone of the resolutions adopted by the Society, warrant me in supposing they were intended, less as a testimonial of personal friendship, than as a reproof to a few men in our own profession who have publicly, and with small regard to courtesy, uttered very broad, unreasonable and conflicting criticisms, based in most cases upon a misunderstanding or perversion of the facts, and plainly enough intended for the popular ear than for the ear of the educated medical man.

I infer also, that it was in great part the purpose of your Society to stay the progress of certain mischiveous doctrines in surgery recently announced as applicable to the case of the President; but which doctrines their authors have never successfully reduced to practice in the case of their own patients; and who stand therefore before the world in the attitude of demanding that we should have done for our distinguished patient what they, either through lack of experience or opportunity, or for want of courage, have never done for theirs. It would seem, however, that they have a courage rising to audacity when the responsibility of the act is to rest upon others, and not upon themselves.

Very truly yours,
Frank H. Hamilton.

Symptoms of Morphine Poisoning.

DR. HILL.—I wish to mention a case which came under my observation during the past two weeks. On being called at midnight, to see a child two years old, I found it in an almost comatose condition from the effects of what I supposed to be morphine. The symptoms were such as you will find in morphine poisoning:—contracted pupils, stertorous breathing, coldness of the extremities, etc. My diognosis was morphine poisoning, and I began to institute search as to where the morphine came from. About ten days previously I had prescribed for the child, a powder composed of a quarter of a grain of calomel and one grain of sugar. These powders had been given, one in the morning and one at night; and thus seven of them had been given, and it was claimed that the seventh, produced this effect. The powder was taken at eight o'clock in the evening and about midnight these symptoms came on. I immediately set about administering a remedy, using the saturated solution of caffene, hypodermically, having first gone to the druggist to see that the prescription was all right. I injected one-twelfth of a grain, in one hour followed it by another one-twelfth and kept on at that rate until one-third of a grain was used. After the second injection I noticed some signs of improvement; the respiration began to improve. There would be a dozen rapid breaths taken and then it would stop for, probably, one-third of a minute. During these slow respirations the pulse would run down very low. The moment the breathing would start up again, the pulse was increased. It was very remarkable indeed. This condition continued until five o'clock when I left the child, supposing it would be dead before eight o'clock. I went back at that hour, and found the child breathing very nicely and asleep. The pupil was still contracted but there were symptoms of improvement generally. By two o'clock next day the pulses were regular, the breathing regular, and the temperature normal, followed by complete recovery. Now the mystery was to know where the child got the morphine, if morphine it was. The family, who are very intelligent people, insist that nothing was in the house which contained morphine or any of its preparations. I inquired particularly if there were any soothing syrups or any

of those nostrums, and they declared positively that there were none of them in the house. The father was still dissatisfied and took the remaining powders to two or three druggists and had them analyzed, but they returned simply what was prescribed—calomel and sugar. There is some mystery about the case. If there is any disease which produces the train of symptoms I mentioned, I should be glad to hear it.

Dr. Newland.—I think probably this may have resulted from some brain trouble—some peculiar condition of the brain giving rise to these symptoms.

Dr. Johnston.—This child may have taken a chill and had cold hands, cold feet, and cold extremities; with more or less sterterous breathing, contracted pupils. Here the cerebro-spinal axis is effected and all these symptoms would follow them and nothing would relieve them quicker than the caffene. As an injection, it is the very remedy, almost. The powders it seems were analized by competent druggists and nothing but calomel and sugar was found, so that the conclusion is that the druggist put it up correctly. If the child had taken a grain of morphine it would inevitably have died. It is most probable that the child had this paralysis of the cerebro-spinal nerves producing these symptoms, and the caffene injections the doctor gave corrected it and the child got well. I think that is the most likely condition of things.

Dr. Hill.—Perhaps I have omitted to mention that I made application of heat to the extremities and to the cardiac region and I also made injections of coffee per rectum. I memtion this as perhaps I have given too much credit to caffene.

Influence of Genito-Urinary Diseases.

Dr. Ford.—If there is nothing more to be said about the case just described, I think it of importance to direct attention strongly to the general matter of the reflex influences of abnormal conditions of the genito-urinary organs upon the system at large. This matter, I think, we cannot study too earnestly. Every day I see cases which prove to me that the relation between genito-urinary abnormalities and the system at large, is more constant and profound than I had previously thought. We know that of late years there has been much discussion with regard to the influence of the scrofulous diathesis—the so-called,

straneous diathesis—upon the origin and progress of diseases of the bones and joints, and upon the appetite, food and growth of children. We also know that in the large number of the cases, the food has been nutritious and of good quality, and yet we are called upon to note that children grow up a condition in which the nutritive powers are evidently below par,—in which all or some of the organs are less well nourished than they ought to have been. How is that brought about? I think that in many of those cases we can trace this state of things to reflex influences due to congenital or acquired genito-urinary abnormalities. I say this emphatically and after long and careful observation. I am very sure that many of those cases of general mal-nutrition are caused and maintained by irritations springing from the genito-urinary organs, both in male and female children. The most common of these irritative conditions are *Adhesions*, with, and even without retention of smegma and chronic inflammation. Preputial stenosis, and an unduly narrow urethra, in the male, and agglutination, more or less complete of the labia minora in the female; with imprisonment of secretion around the clitoris I have seen numerous instances where these conditions exist in children who are growing up weakly, with depraved nutritive powers, and capricious and feeble appetites. Such a child grows up pale, feeble, anæmic, badly developed, and with feeble muscles and brittle bones. It is subject to pains in the limbs and joints, and gets injured by ordinary exercise, or by such means as would only be conducive to the sport and health of a well nourished child. I saw not long since an instance, where a child jumped about two feet off a plank and fractured its tibia obliquely. Such an accident would not have occurred if the child had been healthy. There was no general disease of any kind, the child was simply feeble. Its legs and arms were small—its muscular development very meagre, and its bones brittle, i. e., badly nourished. The skin and face was pale, like that of all children suffering from chronic irritation. I examined the penis and found a preputial adhesion of long standing, ensuing after an incomplete operation for congenital phimosis with adhesion.

In another male child, seven years old, with Potts disease, I found a congenital adhesive balanitis. I am continually seeing cases of similar character. No doubt a number of the children who are walking or running about the streets with capricious appetites, pale, feeble and anæmic, on inquiry will be found to

be thus affected. This entire subject has grown up since the time of D'Allermand, Reybard and Fergusson, and has been especially studied by Sayre, who has very emphatically directed professional attention to genito-urinary irritation as inductive of reflex muscular contraction of the lower extremities, and some affections of a paralytic nature, also, of the lower extremities. I am inclined to think that by this mechanism, we may explain certain cases of essential paralysis in children. I have no intention at present of reviewing all of the direct and general consequences of these local affections. I wish especially to-night to direct attention to the general mal-nutrition which results from them by reflex action upon the functions of the stomach. We know that in nearly all of these cases, appetite is slender and capricious, and as a necessary consequence, nutrition is feeble and the whole body is badly nourished. Hence, we have feeble bones and muscles and bad nutrition everywhere. This inferior nutrition, wherever there is any chance to do so, is called, *struma*—and is attributed to the influence of heredity, many a point being strained to make the assumption possible. Now, in such a state of feeble nutrition, a slight injury will produce a chronic inflammation of a bone or a joint.

Still, further, in addition to their action upon the gastric functions, and thence upon general nutrition, these local irritations may produce tonic contractions of individual muscles, or of groupes of muscles, and so by distorting joints, and constantly pulling upon morbidly inclined and badly nourished periosteum, directly has, after a greater or shorter time, especially in concurrence with some slight injury, veritable bone disease. Pott's disease may be so caused—and I am confident is so, in a very large number of the cases. This may happen in either sex. Not long ago I was called to attend a little girl who for years, to my knowledge, had been troubled with disease of the cervical spine for which she had been treated with the plaster bandage, braces and elastic suspension, etc. I imparted to the mother my suspicion that there might be an agglutination of the labia minora or adhesions of some sort, and on examination this was found to be so. The vulvar fissure was almost wholly occluded so there was scarcely any space whatsoever between the superior margin of the labia minora, which overeached and hid the urethra, and the peroneal margin. The more, perhaps since both had been projected npwards beneath the labia minora, un-

til agglutination was complete, and then retention of smegma, became a cause of chronic and persistent irritation. This irri tation, by impairing nutrition profoundly, and afterward by causing tonic spasm of the muscles attatched to the spine, was quite adequate to explain the origin of the spondylitis in this case, as in a number of similar ones that I have seen.

DR. HURT.—I wish to ask Dr. Ford if I understand him to contend that simple adhesion of the prepuce to the glans, is calculated to produce this train of diseases?

DR. FORD.—I think it is quite sufficient. We are able to observe the condition in question more easily in male than in female children, because it is unpleasent to examine any but very little girls in this way. The mothers don't like it, and it is not advisable to make an examination if they object at all. With boys it is different; we can examine them readily enough. I have observed that children who are subject to these adhesions, are pale, grow badly, learn to walk very late, speak late and imperfectly, are nervous, subject to constipation, and a good many other symptoms besides. That adhesion alone is enough to induce any of these symptoms in various degrees. Nothing more is required than a tolerably close and impartial observation. After operations which have been *properly* performed for the rectification of these conditions, and after a proper and reasonable lapse of time, the child that was feeble, anæmic, and with a poor appetite, becomes strong, bold, playful, well nourished, and of hearty appetite, in short, all the bad symptoms dissappear in time.

DR. HURT.—While I will not undertake to deny the possibility of the conditions referred to being followed by the symptoms referred to, I think I am prepared, from observation, to testify that they are not always followed by this train of symptoms. I am inclined to think that the simple fact of adhesions in a child that is otherwise physically normally developed, is not likely to produce the symptoms referred to by Dr. Ford. There must be some predisposition in the system to lead to the train of troubles spoken of by him. It is probable that in those abnormal adhesions, I say abnormal, though I am inclined to think they are almost normal in childhood, there must be some predisposition in the nervous system, some hyperæsthetic conditions to coöper-

ate with the local conditions and produce the symytoms, or else the adhesion itself must be complicated with local irriation or inflammation.

Dr. Cole.—This is a very interesting subject. I have noticed a great many cases of this trouble, such as Dr. Ford speaks of, which have arisen from causes somewhat similar, though there is one point Dr. Ford didn't make, that has comported with my experience in these cases. That is, that the adhesive ballanitis is perhaps not the primary affection. It is rather a secondary matter. Almost all these cases that I have seen have a small opening to the prepuce; the prepuce never having been pulled back, the opening is very small. In some of these cases, a very small probe cannot be introduced. In these cases the children urinate with a great deal of difficulty. This is generally noted by the parents. They often suffer with troubles at night such as erections, a tendency to nervousness and so on. I am satisfied that the effect upon the general system of a congenital stricture of the prepuce is very similar to that which we see in a grown man, a congenital or acquired stricture of the meatus.

Two years ago I was consulted in this city, by a gentleman who was a confirmed dyspeptic. He was very nervous and although he had been married some time, had had no children—he had been married ten or twelve years. To my utter astonishment, I found it impossible to get an ordinary sized probe into the meatus. He had never noticed this. In looking at it from the front, the mouth of the urethra seemed to be entirely natural, but when you squeezed it with a finger below and thumb above, the opening was found to be very minute indeed and, as I say, it was impossible to get a small probe in. I tried to introduce an ordinary No. 7 bougie, but it would not enter. I made an opening, enlarged the meatus, it healed up and he recovered his health entirely, without having taken anything at all. His nervous symptoms left. I think it is the duty of every parent to examine the genital organs, and especially to see that there is a proper opening to the prepuce, that it is large enough and I think these parts should be kept clean, and in that respect I think circumcision is always an advantage to boys. It is advantageous to the Hebrew race, no doubt. They are less apt to contract disease, and I have no doubt it secures health in these parts. It prevents a great many vices which boys may fall into.

DR. HUGHES.—I must confess that I look upon the subject much in the same light as Dr. Hurt does. I have seen a case of tetanus produced by the difficult protrusion of a wisdom tooth. I have seen tetanus produced from a wound, in one person in the foot, and I have seen a soldier in the next bed with his foot lacerated all to pieces, escape the trouble. I have seen epileptics who had adhesions of the prepuce, and I have seen a great many epileptics that have not this. I have seen 90 per cent. more epileptics in whom I could trace no possible excentric source of excitation or irritation. I have seen an epileptic boy with an adhesion of the prepuce, and have operated upon that prepuce, performed circumcision and cleaned the smegma away and the epilepsy persisted. I never saw a case of Pott's disease of the spine produced by adhesion of the prepuce, and I never saw a suspicion of such a result from such a source of excentric irritation. There can be no doubt of the potency, under certain circumstances and certain constitutions, of peripheral irritations producing central excitation, and, ultimately, central organic trouble; but I opine that in these instances, where central trouble takes place, and organic conditions are produced in the cord, there must be another factor to give the result of central disease. And I believe that that is the tendency of modern thought, and the conclusions of later observations on this subject of reflex irritation. Dr. Sanders has cited some very interesting cases in my Journal—the last number—of reflex irrition and nervous trouble, but there is a strong presumption that there exists in these cases, these comparatively exceptional cases, of persons who suffer excentric irritation with the central troubles following, another factor, and that factor consists in inherent neuropathic tendencies in the individual. It seems to me it is much more reasonable, when excentric trouble developes central disease, to assume the existence of another factor, than to set it down as a fact that the excentric irritation is the maine cause of the central trouble, and if the gentlemen will only sum up their observations, they will find the great preponderance of testimony is against the assumption that attrasia vagina, or adherent prepuce and other genital irritations are always the source of the central trouble. It is well enough when you have any central trouble, any spasmodic display, to look about your individual and ascertain all there is that is wrong in the patient. The condition of the bowels is often the source of irritation, but whilst one

child will suffer from convulsions from a certain amount of irritation of the bowels, a great many other children will tolerate a similar amount of enteric irritation with impunity, and for the very logical reason that the excentric trouble is the sole cause. Why the experiments of Vulpian were satisfactory on that subject, the possibility of peripheral irritation to produce central changes, but speculation on the recently practical operation of nerve stretching, for tabes dorsalis has stimulated physicans to the study of the capability of peripheral irritation to excite central changes, hereditary central changes in the cord. But gentlemen are apt to become too exclusive. I think Dr. Sayre, for instance is rather exclusive in his views upon the subject, when he called the attention of the profession to the reflex action produced by congenetally contracted prepuce. He seemed to be under the impression that that was the most potent cause of the convulsive troubles of children.

Dr. Prewitt.—Mr. President, I thought my friend Dr. Hughes would be especially happy by the remarks of Dr. Ford as he is *par excellence*, the neurologist of the society in his oxplanation of pathological conditions and manifestations, but it seems he does not at all agree with Dr. Ford in his views on this matter. And I must admit that we are inoculated to a certain extent with the doctrines of the neuropaths of the day, but whether, they have gone too far, is another question. That is usually the case. When any new doctrine is sprung, it is carried to that extent, yet good generally comes from it, because it is investigated thoroughly and studied for all it is worth. That this reflex irritation is a potent agent, we must all admit, and that these maladies of the genital organs do often times produce great disturbances, every one must admit who has had his attention called to them and noticed the cases. I saw, two years ago, a child that had, at intervals, epileptiform convulsions, and on examining the prepuce, I found it long and adherent. I circumcised the child, detaching the prepuce from the glans, removed a large amount of smegma, and the child had no more convulsions. Then we know that when a patient has a very small preputial orifice, sooner or later an irritation of the bladder will be set up, and it may lead to the formation of stone in the bladder, cystitis and so on. I was asked to see a case in North St. Louis, some months ago, by a physician of this city, a very intelligent mem-

ber of the profession. It was the case of a man who had been affected with hemorrhoids for several years, and had bled a great deal, until he had a waxen hue from the increased and protracted bleeding, although he was of rather full habit, full form and *physique*, still his tissues were soft and flabby and waxy. It had affected his stomach so that he could eat very little. He had hemorrhoids, a fissure of the anus and symptoms of stricture of the bowels. The stools he passed were flattened. He often vomited when he got out of bed in the morning. I operated, cutting through the fissure, as is usually done superficially. This only relieved him partially. It benefitted the hemorrhoids very much. The symptons, however, persisted to a certain extent. This benefit was only temporary, and when the wound healed the trouble returned. The stools were small again and the old symptoms recurred. This time I made a deep incision, perhaps entirely dividing the external sphincter, but not the internal. He was wonderfully benefitted. His appetite improved and he passed well moulded stools. This would seem to indicate that there was a spasm of the sphincter. I learned not long since that he is still troubled on the healing up of this cut which I made, that he is troubled again to a certain extent. The physician in attendance suggested the advisability of cutting through the internal sphincter. He regards all the symptoms as reflex, and I think probably he is right. There is no other reason for it that we could discover. The man has improved wonderfully since he has been free from the hemorrhoids, probably because he no longer loses blood. He has a good color now, but he still vomits in the morning, as soon as he puts his feet upon the floor, or gets out of bed. The very fact that the stools become well moulded on the division of the sphincter, would indicate that there was a stricture at that point, but as far as I could reach, I could find no evidence of stricture anywhere, nor was there anything to indicate that there was chronic constriction of the bowel or bowels above, except for the fact that he had at times had flatulent distention and colicy pains. There is no history of chronic stricture of the bowels, and so far as we can judge it is due to that fissure of the bowel with spasm of the sphincter. It is a very interesting and rather puzzling case to me as to what was the full extent of the trouble.

DR. SAUNDERS.—Mr. President, in these cases of which Dr.

Hughes has spoken, I will state that there are four cases of reflex gastralgia, due to adherent prepuce. In all these cases the separation of the adherent prepuce was followed by instantaneous and complete recovery. I have seen any number of such cases without any reflex irritation. These children complained of the same symptoms; one of the children for two years and more, another for a space of weeks. They have violent attacks of pain in the stomach. At night they wake from the soundest sleep and cry out with pain, in a few minutes they pass off and the child goes to sleep again. All medietaion in these cases was useless. This simple operation relieved them entirely.

Dr. Ford.—I merely wish to remark, Mr. President, that, as a matter of course, every pathological phenomenon is attended by a group of conditions, which we term causes, although some one or more of these are more potent and directly efficient than the others. So far as the pathological manifestations under consideration are concerned, it by no means follows that every child which has an adherent prepuce, with adhesive balanitis, will certainly betray reflex symptoms at the precise time he may fall under the observation of any good practitioner, though he may do so eventually. Numbers of cases show no very obvious symptoms for a long time, and I have had much difficulty in persuading parents to pay particular attention to the matter.

It is difficult to make people believe that a mere adhesion of the prepuce to the glans without any manifestations of external irritation will inaugurate and maintain various reflex phenomena, disastrous in the end. In the course of time they will see their children grow up pale, with a poor appetite and with highly developed neurotic tendencies, which may in time become substantial and organic in character. Of course there are some of these cases in which the worst effects are not produced.

In children, I may remark, the glans is often uncapped with difficulty. In a great many children the preputral orifice is a mere pin hole, and in other cases, where the orifice is very small, it requires considerable force to retract the prepuce. In such cases balanitis with ultimate adhesions is the almost invariable result. The deposits of smegma behind the glans begin and maintain a new and intense irritation. The point that I have wished to call particular attention to, is the wide range of reflex phenomena which occur in many of these cases; nearly all of

them present the symptoms of mal-nutrition, and this of course results in weakening the powers of life and tends to convert functional derangement into true disease of muscle, periosteum, bone and nervous tissue.

Mr. Barwin has lately dnawn up an account of one-hundred cases of hip joint disease of children and eighty-five had balanitis —perpetual adhesions. There is a great difficulty in examining girls, nobody likes to do it. I had a discussion with a lady this morning on this very subject. The parents say, the child is getting a long very well and we don't like to give the little thing so much pain. We all know the effects of these adhesions on the stomach. As regards the spinal column, I have never seen a case of Pott's disease that was actually caused by it, but I consider it highly probable that the influence of the constant muscular contraction—constant tension might produce such an effect.

DR. MCPHEETERS.—This is a very large and a very interesting subject, and as it has just been entered upon, I think this discussion ought to be adjourned over. I agree in the main with Dr. Ford in the importance of this reflex action. I don't believe it is possible for this adhesion to continue without its being followed by disease. There is another point in which I agree with Dr. Ford, and that is in regard to the necessity of having a sufficiently large orifice to the prepuce, I recently performed the operation of circumcision on a boy twelve years of age. Dr. Williams assisted me in it. In this case there was the pin-head opening. But the hour is getting late, and I hope this discussion will be continued to another evening.

DR. HUGHES.—Before the society adjourns, I would like to say one word which I neglected to speak of in my remarks before. There is a tendency among surgeons to take a wrong view of this subject of reflex irritation, and to conclude that, when they have an excentric source of a central trouble that is the whole trouble and that the knife is all that is requisite and this accounts for a good many mistakes. The extirpation of a redundant prepuce is a matter of little consequence, but when they go to the extent of Baker-Brown who excised the clitoris of certain persons, and when you come to conclude, as many surgeons are inclined to conclude, that when women have anything the matter with them, the fault is with either the ovary, or clitoris or uterus, and straightway operative preceedure must be

resorted to, a great deal of harm may be done to the sex. A course of proceedure is adopted towards females that would not be tolerated in practice in regard to males. Indeed, were it the custom when a gentleman presented himself at a physician's office to be examined, to make a genital examination in every case of head trouble, it would be taken as an insult. But this is the course which is pursued by some persons. I make no personal allusions. I don't mean any person here present. I allude to men who have extreme gynecological ideas, who see brains and everything else through speculi which must result in great harm to the race. Because Lauson Tait excised the ovary of his patient and partially recovered a mental trouble, it does not follow that every instance of a similar proceedure will cure a similar central trouble.

The whole uterus was excised by Dr. Schenck at the woman's hospital, for a woman who was insane—not, however for the purpose of curing her insanity, and the insanity persisted after this operation., Probably I ought in justice, to say that there was an ovarium tumor with uterine implication and the operation I think, was justifiable, but if it had been done for the purpose of curing the insanity, it would have proved a failure.

Saturday, Nov. 5th. 1881.

Report on the Tri-State Medical Society.

Dr. Dickinson was asked to make a report of the meeting of the Tri-State Medical Society.

Dr. Dickinson.—Mr. President, it must be borne in mind, that this society is composed of the three states of Illinois, Indiana and Kentucky, and by a greater extension of the boundaries the cities of St. Louis and Cincinnati have been added, I suppose in recognition of the fact that some members of the profession of those cities have attended their meetings. It has got to be very much regarded that no reputable medical gentlemen are excluded from that body, or from its discussions, etc. The previous meeting was held at Louisville, and delegates from the three states were in attendance. It was on their own responsibility and not by any invitation of the members of the profession here, that they voted to meet in St. Louis. The meeting was held on the 25th., 26th., and 27th., of the past month; and while

the attendance was not as large as had been expected, it was a very successful meeting. There were over seventy physicians in attendance. It was called to order at about eleven o'clock on the 25th, and the president made his address and at the close of it, he broached the subject of the social evil law. He simply suggested the subject in order to elicit discussion. Some remarks were made by some of those present and an effort was made to bring about a discussion of the question, but few responded. The regular order of business was proceeded with; Dr. Washburn read a paper on Medical Orthodoxy. In this he attacked the code of medical ethics adopted by the American Medical Association. This paper was criticised and his remarks opposed by a member of the Association. A large number of papers were read, and they were listened to with great attention by the members present. The papers were all interesting with perhaps one exception, and I think the session, as a whole, was a profitable one, and that it was so regarded by those who were present. The next meeting is to be held at Terre Haute, on some day in September which was not definitely fixed. Nothing remarkable transpired. Dr. Center, read an interesting paper criticising the surgical treatment of our late President, in which he endeavored to show that the wound was not necessarily mortal, or if it was mortal, that it had been greatly aggravated by the meddlesome surgery of some who were in attendance. I did not think that his position was sustained, and I think that was the view of most of those present.

DR. SCOTT.—Dr. Dickinson said there was nothing remarkable about the Tri-State Medical Society. There was to me one very remarkable feature, and that was the hard, earnest work that the Association did—legitimate work. I think it was quite remarkable how that society stuck to their work all the time, and I think some of our larger bodies might copy very well from the example set us by the Tri-State Medical Society, and stick right straight to their legitimate work. There was no by-play. The American Medical Association should adopt a similar course. I think Dr. Dickinson will agree to what I say. It was very remarkable from the fact of the industry in persevering right straight along with the specific object for which it met.

DR. HUGHES.—If remarks of this kind are in order, I would like to speak in the same tenor as Dr. Scott. I really think this

society is one of the best working medical organizations in this country, and I say it with a full appreciation in my own mind at least, of its significance. I believe that this Tri-State Medical Association did better work at the last session here in St. Louis, than the American Medical Association did last spring at Richmond. I believe that the society did equal, if not better, work than the most of the medical societies—our own excepted,—that I have had the pleasure and the honor of attending. The papers read, with one or two exceptions, were of a practical and instructive character, and those who heard those papers will bear testimony that there were none of them worthless, and that they were generally lacking in one of the attributes common to papers read before medical societies. They were lacking in that evident intention on the part of the writers to puff themselves. There is an earnestness about the society, a zealous determination to advance the true interests of the profession that is truly commendable and is observed by all who come in contact with these gentlemen individually or collectively. It is very well known that it was in accordance with their wishes that no effort should be made by the citizens of St. Louis to distract them from their legitimate work, by having any entertainments—something which medical societies are proverbially known not to refuse—and in that respect they certainly were exceptional and remarkable. It has got to be pretty well known that the American Medical Association is an annual spree—as some member of the Association once said.

Dr. Dickinson.—I accept most cordially the criticism. I do think it was very remarkable in that respect. There is one matter I would like to call attention to, and that is the paper of Dr. Link on the "Re-formation of Bone." In this paper he gave his mode of treating stumps after amputation which he practices with great success, and has done so for several years. It is different from the method employed by surgeons generally. I will endeavor to describe it. He applies no ligature to arteries, but simple torsion. This mode I understand is particularly applicable to the circular operation which he has adopted. He leaves the wound open as he illustrated by his sleeve. After amputation he applies a bandage firmly and leaves the wound itself perfectly open, and when it heals there is simply a depression in the centre of the stump. He has practiced this method for sixteen

years, and says he has no reason to change it. He stated that he had presented this method at the meeting of the American Medical Association, and that it was received as a good plan, and adopted by the New York surgeons.

DR. RUMBOLD.—In 1862, I treated a patient of mine, in the Laclede Hotel, then called the Fifth Street Hospital, by applying adhesive straps to the stump of his right leg. Dr. Hodgen, then surgeon in charge, had amputated his leg above the knee, through the junction of the lower with the middle third of the femur. I did not bring the edges of the wound together, but left it open. If my memory serves me right, I applied six adhesive straps, brought them together about five inches below the stump, and attached a small sand bag to them. The man is still living in this city. While I was located at Jefferson Barracks, I treated other stumps, both arms and legs, in the same way.

DR. PORTER.—I think that some of the gentlemen have misunderstood Dr. Link's operation. From a conversation with him I got the explanation of his manner of operating, which was this: After the circular operation, the flaps are left open and a tight bandage is placed above. When granulation begins the flaps are gradually brought together until they form the solid stump. It is not the open flap, it is the circular operation left open for a time until granulation begins, and then it is gradually brought together.

Presentation of Patient.

DR. PREWITT.—I wish to present the case of a young man who is now in the hall. I had occasion some time ago to report a case of tumor of the neck, which I had removed from a boy five years of age who was greatly emaciated and anemic. I also presented the tumor which I had removed. Since the operation the boy has greatly improved in every respect in his general health, etc. The case of this young man is of tumors of the neck of the same character glandular tumors of the neck on the right side. They were quite large, extending from the zygoma to the clavicle and dipping down and resting on the sheaths of the blood vessels behind the sterno-cleido-mastoid muscle, disfiguring him very greatly. He came to me some months ago, and wanted something done. He had had various treatments for it, but it was evident that medication would do no good. It was

perhaps on account of the great disfigurement that he was so anxious to have something done. I consented to operate, and as you see I have made first a long incision in the side of the neck, and a traverse incision here, dissecting out the masses of tumors; dissecting forward until I laid bare the sheaths of the vessels and the hypoglossal nerve, and so on, cutting through the sterno-cleido-mastoid muscle. It is healing up nicely, and filling in very rapidly. There are some enlarged glands on the other side, of the same character. He asked me afterwards why I did'nt take those out. I told him that I was very well content to get through one side at a time. As a matter of fact it was a very bloody operation in the end. After cutting and dissecting out a great portion of the mass, and cutting down pretty close to the sheaths of the vessels, I inadvertently divided some large veins—the facial and the lingual near their entrance into the internal jugular vein. They bled furiously, and it was very troublesome to get hold of, and ligate them. In ligating the lingual vein where it crosses the hypoglossal nerve, the nerve was accidentally inclosed in the ligature. This was afterwards removed, but, (to the patient, put out your tongue.) you see his tongue protrudes to the right. After I had ligated the veins and began to apply the dressing, he vomited and it all came off again. The blood flowed in perfect torrents, in fact, it poured out so profusely that I feared I had cut the internal jugular vein. I then succeeded in getting the forceps upon the veins, and closed them up. I had so much difficulty in getting the ligature applied, that I left the forceps and did'nt attempt to remove them, but left them to hold the veins ; and they stayed there until they became detached, in about four or five days. The mass projected out very largely, and was very disfiguring. And it was perfectly evident that no sort of medication would do any good. He had resorted to all sorts of treatment of that kind before. Of course there are other glands that are enlarged, but he felt so sensitive about this great disfigurement, that he was anxious to have something done.

It may be that there are other glands that are enlarging elsewhere—that there is a tendency to an enlargement of the glands about the body in various parts. Although this was a risky operation, he was anxious to have it done, and as a matter of fact, when these tumors about the neck have been once removed, and the patient escapes the direct danger connected with the

operation, they usually do well. I have another case of the same character—a girl about twenty-three years of age. She has a tremendous mass on both sides of the neck. She has a constant fever. The temperature is 102° or 103°, all the time, and it has been so week after week. In this case I can trace the enlarged glands behind the clavicle. And probably the glands in other parts of the body are enlarged. I think it is likely, that if she were not so much emaciated, and the tumors were only upon one side of the neck and could be removed, she would improve. But I don't think it would be justifiable to attempt any operation, because she is so very much emaciated, very much enfeebled, and we certainly could'nt attempt to remove them on more than one side at a time, and the other would be left to keep up the same condition of things. And if she survived the operation upon one side, it would still leave the other, and this would keep up the fever, etc.

The Effect of Chronic Ulcers, Necrosis etc., in the Causation of Tuberculosis.

This subject having been made the special order of debate, Dr. Wm. Porter was appointed to introduce it and said:

Gentlemen,

This is a question of great importance, and I hesitate at the responsibility you have imposed upon me in asking me to open the discussion upon it. The more so, as I know that different and even opposite views regarding tuberculosis are held by members of this society. Not expecting to harmonize all these theories, let me make a brief statement of facts bearing directly upon the subject.

It is taught that in one of two ways a local inflammation or pus-secreting surface or cavity may aid the development of tuberculosis.

1. By as a drain upon the system, diminishing the power of resistance, and so rendering the individual liable to tubercular invasion.

2. By absorbtion of purulent matter and detritus from the local processes.

Let us examine these positions separately.

To begin with, we may use the terms tuberculosis and phthisis as synonymous. Tubercle and tuberculosis are anatomical distinctions, but not to be ignored by the student of clinical medicine.

Indeed, it is now assumed by those most learned in pathologic lore, that, "in all cases of caseous phthisis, tubercles are imperfectly mixed up in the morbid changes."

1. How may a systemic waste be a factor in the inception of tuberculosis?

The foundation of tuberculosis lies in a diminished vitality of the bioplasm, the germinal matter of the system. This condition, inherited or acquired, favors the deposition of impoverished formative material in various localities, either as the result of inflammation as in the lung, or seemingly spontaneously in parts naturally designed for the reception of healthy bioplasm. This infiltration of degraded bioplasm, the phthino-plasm of Williams constitutes the main ingredient in early phthisis. Whenever this material is deposited, unable to form tissue or sustain life, it clogs the circulation, irritates the functions of the parts and so induces further changes in itself and in the surrounding structures. At first the infiltration, in the lungs for instance, is pervaded by blood-vessels like other new formations, but its elements so crowd upon each other that the vessels become occluded, the corpuscles shrink, fatty metamorphosis occurs, the fluid is absorbed and the yellow cheesy mass remains. This is the ordinary tubercular progression.

Now granting that, according to recent writers, like lobar pneumonia, like malarial fever, like syphilis, tuberculosis has its own cause, still the primary cause is, or at least finds good soil, within the impoverished condition described. From this stand-point there can be but one conclusion, *i. e.*, that whenever a chronic ulcer or pus-secreting cavity becomes detrimental to the best power of resistance to a tubercular tendency, it should if possible be healed.

A word in reference to interference in such cases. As a surface irritation or a seton may in certain cases act as a counterpoint to local determination of a tubercular tendency; so are there instances in which chronic discharge forms an ulcer, or the influence of an inflamed joint, may in a way not yet understood by us, also retard specific morbid changes. If a long continued discharge or inflammation does not give evidence of demolishing the strength and weight of a patient with a tubercular diathesis, it were good practice not to interfere with it, certainly not if there be active pulmonary disease. The rather should improved hygienic conditions, nutritives and tonics be combined to place

the patient on vantage ground both as to the diathesis and the local degeneracy.

2. The second position which we examine is that a prëexisting local lesion, such as diseased bone, abscesses, ulcer or fistula may induce tuberculosis by absorption of the detritus. Rindfleisch becomes a prominent exponent of this doctrine when he says, "inflammation any where suffices, owing to the reabsorption of the inflamed matter, to call forth the eruption of humorous metastatic inflammatory deposits—the miliary tubercle." As this is the exact position in question, let us see if it can be maintained.

The theory of the absorption of tubercle and the consequent production of tuberculosis has been sustained by Villemin in 1865, and afterwards by Cohnheim, and a host of others. It must not be forgotten, however, that these, and especially Cohnheim, show that it is the absorption of tubercle which produces tubercle, while the inoculation and absorption of other matter may produce septicæmia, but not tubercle.

This then is the position we maintain:—There is no danger of tubercular auto-inoculation from a non-tubercular ulcer, or inflammatory process. I ask your attention to the following facts:

1. Chronic inflammatory disease of the bones is a condition thought potent in the production of tuberculosis. But M. Coulon among 130 children with necrosis, found but 3 cases of phthsis, while on the other hand M. Houard found among 85 cases of tuberculosis in children, only one in which there was bone disease. And of 134 cases of chronic bone or joint disease, but 9 showed evidence of tuberculosis. Of 790 cases of bone and joint disease in St. George's Hospital Lond., only 10 per cent., had disease in other parts of the body; and tubercular disease was but a small proportion of the 10 per cent. Evidently there is not much danger of tubercular inoculation from necrosis.

2. It is claimed that local suppuration from non-tubercular ulcerating surfaces may, by absorption cause tubercle, but as before mentioned, such absorption may lead to septic poisioning but not to tubercular processes. On the contrary, chronic suppuration, especially from necrosis and caries is supposed to be the cause oftentimes of amyloid degeneration a very different sequence from tuberculosis.

3. Tröltsch claims that purulent otitis is not infrequently a

precurser of tubercular meningitis, but much importance cannot be reasonably attached to this, when we reflect how common an affection otorrhœa is in childhood.

4. It is held that fistula in ano may cause tuberculosis; but Pollock shows that the tuberculosis is generally the earlier affection; and is found in the advanced stages of phthisis much more frequently than in the first. Howard commenting upon this, says, if the absorption of corpuscular products from abscesses, ulcers, etc., may induce tuberculous disease, how comes it, that fistula in ano is, according to Pollock, never associated with acute phthisis, the very variety in which the tubercle *par excellence*, i. e., the miliary, is present. He further says, that the existence of fistula in chronic consumption appears to prolong the duration of the pulmonary disease, instead of causing it to extend and take an acute form through the constant absorption of the inflammatory products.

These, with other facts which could be easily adduced, have led me to doubt the existence of danger of tubercular disease, from absorbtion of products of simple local inflammation. The best researches of modern pathologists confirm the old views of Laennec, that tubercle produces tubercle, as syphilis produces syphilis; and we may add, touching the question before us, as pus may produce pus poisoning.

In brief recapitulation:

1. Chronic local disease of the bones, joints, or freely suppurating ulcers, may so devitalize the patient, as to favor the advance of tuberculosis.

2. Local non-tubercular pathological changes do not give rise to tuberculosis by absorption of the products. The rather is it true, that tuberculosis is a primary disease—*sui generis*—for "not depending upon the mere accidental result of any ordinary inflammation, it cannot be produced by the causes of any ordinary inflammation."

DISCUSSION.

Dr. A. Green.—I think it is agreed by all the medical world, that whatever weakens the system, predisposes it to consumption; but I think we must make a difference between tuberculosis and phthisis. Not every consumption is actual tuberculosis. Again, I think it is universally conceded that the absorption of caseous matter—anything going to produce cheesy

degeneration—produces miliary tuberculosis. We know very well that if pus is not eliminated from the system in some other way, it may become either a fatty degeneration and be re-absorbed without any harm to the organism; or it may degenerate into caseous matter. In both the metamorphosis is the same, but in the one there is fatty degeneration—there is an albuminous fluid poured out into this from the system and it is made into a kind of emulsion, and thus the system is enabled to take it up through the absorbents. It may even serve as a physiological power. In the case of caseous degeneration, the first step has been the same as in the fatty degeneration, but the next step is not the formation of an emulsion, it will not make a good emulsion, and as the liquid matters afterwards dry up, it may produce an inflammation, or irritation of the parts and that will produce miliary tuberculosis. Now, if this be true, then it is very easily conceivable that any suppurating surface no matter where it is, in what part of the organism, may produce true miliary tuberculosis. That is if it goes into the caseous degeneration, instead of going into the fatty degeneration. But as I said before, anything that weakens the system may produce phthisis. Then again, if there is inflammatory process in the lungs, and the matters are not expectorated, they go over, perhaps, into fatty degeneration, and absorption takes place. But again, cheesy or caseous degeneration may occur, and these being absorbed produce miliary tuberculosis.

DR. BERNAYS.—Mr. Chairman, I am sorry I did'nt take more notes of the paper when the doctor began reading it. I did'nt think he would go over the grounds that he did, so I only took notes of the latter part. If I understand him right he takes the ground that there is nothing to prevent tuberculous disease of the lungs from being caused by any tuberculous ulceration in any other portion of the body—any tuberculous pathological process. In order to get at the question of the origin of tuberculosis, or in fact of the origin of any disease. We will suppose a healthy organism—born and put upon the earth to fight its way through life. Now that organism can only be diseased from two causes. Either it is hurt from without, or it bears in it the germs of disease hereditarily. We cannot imagine a child attacked by any disease except from one of those causes. But we will suppose that the child comes without any hereditary taint. Then

the only possible way that child can get sick is for it to receive an injury from without, either a surgical injury, or some injury of a climatic or meteorological character. Now suppose that child received a fall in the woods—taking a primitive example three or four hundred thousand years ago—the child falls and breaks its leg. Now, as there were probably no surgeons at that time, the leg most likey will grow crooked, or it may have a false joint formed and then between the two ends of bone there will be a chronic inflammatory process which will end in many cases in the formation of cicatricial tissue, not necessarily in cheesy degeneration; but suppose a hard winter comes on and the child's parents don't give it enough nourishment. Suppose the earth does'nt produce enough nourishment, so that the child is weakened. Now the place where that child's leg was broken will be the weak point, and there will be a degeneration of the cells and of the tissues. And I have no doubt that we will all concede that the next place where the products of the injury will be lodged, will be the lymphatic glands near the groin. Now that child may grow up and it is probable he will have trouble in the glands near the groin. Then suppose that child becomes a man and has children, those children will inherit a little bit of the injury that the parent sustained. And in that way we can understand the origin of disease. We have no right to suppose a specific origin for each particular disease. We know that you can inject into the veins of an animal—a rabbit for instance—little particles of dust, and we will see by the use of the microscope that every single particle of dust will cause irritation, there will be degeneration and a tubercle will be formed. The doctor described very ably the manner in which the cells will be crowded together, and a tubercle formed. There is another point in regard to the paper that I wish to speak of. The doctor stated that out of one hundred and forty cases of necrosis there were only three with tuberculosis. This is of no weight as an argument, because you must wait four or five years in order to find evidence of tuberculosis. Then it will show in the person's lungs. Then he speaks of fistula in ano; that complaint is a very good illustration of my standpoint. I believe in some cases, fistula in ano is secondary to tuberculosis, where the patient has primary tuberculosis of the lungs, but in other cases fistula in ano is the first lesion. For instance, a patient swallows a fish bone which passes through the abdominal tract

until it reaches the rectum, where it becomes lodged and perforates the mucous membrane of the rectum, and an abscess is formed and ultimates in fistula in ano. Another case which illustrates my position, is that which Langenbeck relates to his students. He says he has seen four or five cases of gonorrhea in young and healthy army officers who were subsequently troubled with hip disease. His explanation is this: The officer has a gonorrhea, then he has a little swelling in the groin, and pays no attention to it; the groin remains slightly enlarged, and in the centre of the gland there will be fatty or cheesy degeneration; from that results general tubercular hip disease.

DR. JOHNSTON.—I only wish to say a few words on this question. History repeats itself. Forty-three years ago, a worthy Professor at Lexington, Ky., taught us that consumption was a disease of the lungs which had its origin in the dust of certain occupations, as grinders for example, which, when taken into the bronchial tubes, produced a local irritation. We were also taught to give in these cases, tartar emetic, and experience proved that the patients died very rapidly. Then again we were taught to bleed in these cases. Now does experience prove that this position is correctly taken? I think not. Pollock has written a monograph, on what he terms tubercular consumption. That work was written about twenty years ago. He was a hard-headed Englishman, who reasoned and observed from facts, and also from pathology, as well as our German friends. Pollock shows that there are certain conditions that are especially apt to be attacked. You will find gradual emaciation and then in the morning there will be a slight cough, with a rapid pulse. You will find the whole of the nutritive system deranged, and this commences at the point of digestion. Now in that condition, the lungs, perhaps, being the weaker organs, instead of the joints, are attacked and there you have another process dependent upon local inflammation. There you have what is termed miliary tubercle by a law of development upon which a very small point may develope and grow. This breaks down into pus, and then the watery particles may be absorbed and eliminated from the system.

There may be a specific poison in consumption because it is known that rabbits have been inoculated with tubercular matter

from a living human being, and it produced tuberculosis and death in them.

Dr. Hughes.—I think Dr. Bernays is undoubtedly correct in his starting point. I don't know that I agree with him much farther. Undoubtedly there are only two sources from which disease may come upon a person: from within and from without. That is a very clear proposition. There is only an inside and an outside to a human being, and these are the only ways you can contract disease: it either comes upon him from without, or it issues from within. The illustrations in regard to the formation of tubercle may answer very well in Vienna or Austria, but they would hardly be appreciable in St. Louis, because if dust is the origin of tubercle, St. Louis ought to be a city of the dead, for our streets furnish dust enough to inoculate every mother's-son of us with tubercle a great many times a year. The illustration taken from Langenbeck, it strikes me, was rather far fetched. By what anatomical rule should a tuberculous degeneracy established in the groin find an invariable lodgement in the hip? I think it would take a great number of officers similarly affected and invariably affected to convince one that the irritation was a demonstration of a pathological effect. It would be necessary to take into account the number of persons similarly affected in the groin, or affected in the genitals and not similarly affected in the hip. Then it would be interesting to know something of the ancestral history of these individuals to ascertain if they were not of another nature. But I did not arise to discuss these questions. I simply make this criticism. The question of interest in the paper consists in the connection between issues and local chronic sores and tuberculosis. Now it is a well observed fact which has been for a long time noted, that the stoppage of certain chronic issues has been followed in certain individuals by the development of phthisis pulmonalis and I suppose that the question which would arise in the minds of most of us is, how to account for it? Why is it that upon the stoppage of a chronic drain upon the system which is supposed to stop the individual's vitality should be followed by the development of a disease which results from an aplastic deposit within a part, and which is itself a disease of degeneracy and exhaustion? Reasoning upon the subject, one would suppose that the stoppage of a chronic drain upon the system would be to conserve the remain-

ing vitality and enable the individual the better to combat disease elsewhere; but such is not the generally observed effect. This is the only point of special interest, it strikes me, in the paper. Now how is it that the stoppage of an ulceration, the healing of a fistula in ano, may be followed by the manifestations of phthisis pulmonalis? I confess myself unable to answer that question in any other than a conjectural manner, nor have I been able to glean from any other source, a satisfactory answer to that question, and if any gentleman has a more satisfactory, answer I would be glad to hear it. I cannot conceive how the stoppage of an issue can be followed by tubercular phthisis except upon the hypothesis, that the system becomes accustomed to this excentric irritation, and this excentric irritation acts centrally, so as to stimulate the vital processes and keep them raised to a higher standard than usual, and the purpose of this local disease or discharge is to supply the morbid process. When the issue, or whatever it may be, is healed, the irritation continues to act on the spinal nerves, or nerves of the cord, and this becomes a source of central irritation. It is a fact, I believe, a fact pretty well decided by well informed observers, that it is a somewhat perilous consideration, to stop, in a person who seems to possess tuberculous diseases, an hereditary or chronic issue. I believe, of course, that the local display of tubercles depends upon a diathetic condition.

DR. HURT—In my observation, those chronic ulcers which have been so related to tuberculosis of the lungs, as to suggest the idea of either cause or effect, are those which are usually found in or about the rectum or some other portion of the alimentary canal, and are, in all probability, tuberculous to begin with. But that a simple chronic ulcer upon an individual not predisposed to phthisis, would be calculated to induce phthisis, I am not prepared to say. I have observed, as Dr. Hughes has remarked, that the healing of ulcers, have sometimes proved dangerous and have been fruitful of the development of disease in some other form or some other locality. I was acquainted with a gentleman in my early youth, who reached a very advanced age before he died—very near one hundred years. This gentleman had, as long as I knew him, about twenty years, an ulcer on the tibia, which he called a fever sore. Not that I am certain that it originated in a fever, but my impression at that time was that it was so called, for the reason that whenever it healed up,

by any process of treatment, he was thrown into a violent fever, which could not be arrested or controlled until a plaster, or some other process, was used to reproduce the ulcer. Then the fever would subside. It is possible that, by the arrest of the drain upon the system that is produced by an ulcer, certain matters may be thrown back upon the system which are unfriendly to the phyisological processes, and produce morbid effects elsewhere. The ulcer may really be a conservative issue for the escape of morbid products that are generated in the system, and in that case it stands to reason that it would be unwise to heal an ulcer until we have prepared the system to eliminate these morbid products through some other channel.

Dr. Anderson.—The point to which the discussion has reached at present is, the explanation of the influence of these chronic ulcers or issues upon the production or non-production of tuberculosis. The subject is an interesting one, and I have listened with great interest to both of the explanations given, one by Dr. Hughes, and the other just given by Dr. Hurt; but it strikes me that neither of these explain it exactly and fully. In the first place an increased nervous excitation doesn't induce a higher plane of life; neither is it conducive, it seems to me, to very perfect health in any individual that there is constant nervous excitation of the spinal cord. Neither do I think can we presume that the cause of the beneficial influence of these chronic ulcers depends altogether upon the freeing of the system from morbific materials. But there is a philosophy which has been often explained in this society which assigns another reason for the connection between the production or the following of tuberculosis in the closing of chronic ulcers. That is, the view that all vitality or vital force depends upon and is consequent upon decay or decomposition of the organism. Now we have here a chronic sore. Granulations are continually being formed and passing off into pus. There is an increase of vital action, and increased decay of the organism at that point, and this decay generates or causes increased vitality in the individual so that we have a state of health produced simply by the greater destruction or wear of the organism at this point, and hence the healing of such a sore would deprive the system of one stimulant or tonic and it would at once be followed by the production of adynamic disease. That is not a new theory. It explains the result we

derive from the common use of blisters, for instance in the chronic stages, resolvent stages of inflammatory disease. It is hard to explain the action of blisters. I believe they do good through their tonic influence, they increase the cell action. This explanation, to my mind, is a very satisfactory one in this point given, in regard to the connection of fistula in ano, old sores etc., to the better health of the individual and the consequent tuberculosis upon their healing.

DR. RUMBOLD.—My observation with respect to the relation of an ulceration or a drain to pulmonary disease is this: The curing of an ulcer or a drain, like a fistula in ano, that precedes an attack of phthisis, improves the lung complaint; on the other hand, the healing of an ulcer or a drain, like a fistula in ano, that succeeds an attack of chronic lung complaint, makes this complaint worse. Stated in other words: When the fistula in ano is the primary complaint, and is successfully treated, the tubercular condition is then improved; but if the fistula is the secondary complaint, then its improvement results in injury to the tubercular condition of the lungs.

DR. PORTER.—In regard to this subject we all have our theories—we are all crammed with theory. The relation of tubercle to phthisis, is a mooted question. Whether all phthisis is tubercular or not, is being settled very fast. I don't want to discuss that question. It seems to me that the points at issue have scarcely been touched, certainly not settled by this discussion, and I would like to have it continued on next Saturday night, and I hope the question will be held to, that is: The influence of inflamed joints, setons, fistulas etc.

Periscope.

ARTICLE LXXXII.

AN ACCIDENT WITH HYDROFLUORIC ACID.— [The subject of this distressing accident was Mr. Robbins, assistant in the chemical laboratory of the Institute of Technology. The patient is a man of very acute observation as well as a considerable degree of medical information, and I urged him to prepare an account of his experience with this acid, as it was the first case of injury of this kind I had ever seen. He acceded to my request, and the following paper, with a few unimportant changes, is his own account of this rare occurrence. ALBERT N. BLODGETT.]

"Fluorine as an element, is as yet unknown, it never having been isolated. The reason of this is that it is so destructive to all apparatus used for the purpose. It has been studied in its compounds and reactions, and its atomic weight has been determined indirectly. It is the only element which has no known compound with oxygen. It unites with many other elements as a monatomic acid radical and forms fluorides and also forms quite a number of double salts. Nearly all these compounds affect glass in the presence of moisture. Its hydride is a strong acid like that of chlorine and is a gas. It dissolves many of the metals to form fluorides, is easily absorbed by water, and the liquid acid is obtained by saturating distilled water with the gas. It has little effect upon platinum or lead and is transported in gutta percha bottles as it affects neither this nor wax nor paraffine, but its action upon other organic substances is often very energetic. I once attempted to redistill some of this acid as it is formed in these bottles, but neglected to dilute it one half as is usually done when it is wished to condense it without a freezing mixture. When heated, the gas began to come over without condensing. It charred the wooded box which surrounded the receiver and dissolved and volatilized a piece of writing paper which was exposed to it, leaving only a slight film of a gelatinous substance probably the gum from the sizing of the paper. Concerning the action of this acid upon animal tissues little is known. Wurtz's dictionary gives the fullest account of it which I have been able

to find. He says in substance that it corrodes the skin, giving rilse to insufferable pain, and produces a deep ulcer which is very difficult to heal; small drops of it being sufficient to produce white and painful blisters. I had not read this, and was not aware of the great severity of the action of this acid, and I carelessly used the stump of a match, the wood of which was saturated with the acid above referred to, to remove the lime, etc., from the surface of a piece of porcelain so as to obtain the freest action on the part where I desired to etch a hole through it. When I first noticed that it was getting upon my fingers I washed them and greased them with tallow, and thinking they were sufficiently protected I went on with my work. For about an hour and a half I had the match in my fingers the greatest part of the time. Just before I got the hole through I noticed that the ends of my forefinger and thumb were beginning to be unsensitive, and I felt a curious sort of dull pain that perhaps might best be described by saying that my fingers" hurt" a little. When through, I washed them well, applied dilute ammonia water and washed that off, and then applied bicarbonate of soda, but these measures did not relieve the pain from soon becoming very uncomfortable. and I dressed the fingers in a mixture of linseed oil and lime water, as it felt more like a burn than any thing else. This was done between eleven and twelve A. M. That afternoon I made an organic combustion, and the pain gradually increased till toward the last it seemed a question whether the furnace or my fingers were hotter. In the evening I began to feel alarmed and consulted Dr. Blodgett.

"At this time the ends of the fingers were white and very hard so hard indeed as to dull the scalpel with which he endeavored to cut away some of the skin. The action was still going on; and as the depth to which it had penetrated could not be determined a dressing of cold cream was applied, and later vaseline was used but neither seemed to allay the steady increase of the pain which now most nearly resembled the sensation of a burn when held near the fire. The only relief obtained was by the application of cold and this was only partial, and the only variation in it was from bad to worse, and at last it became the most severe pain I can imagine, and it was not till four o'clock the next morning, and with the aid of one hundred and ten drops of laudanum, that I was enabled to obtain sufficient relief for a broken nap. The next day the pain had subsided and the acid had penetrated

quite a distance below the skin, rendering the flesh totally insensible and hard, having adstracted all the water from it. The other fingers were only slightly swollen, and the swelling did not extend back as far as the hand, showing that the blood was not poisoned at all. My usual good health was only temporarily and slightly impaired by the laudanum, but no other medicine was given. The course of treatment was to remove the destroyed tissue. This it was though best not to do with the knife but poultices alternating with frequent soakings in very hot water were constantly employed, which proved effectual, although slow, in its operation, it being fully twenty days from the time of the injury till the slough was all removed. It was very dry and tough, and by no means inclined to separate from the surrounding tissues. In four weeks I abandoned all dressings to the fingers and was able to use them a little. Only a small permanent loss of tissue has resulted, but now after three months the scars are tender and the sensation is perhaps permanently destroyed. This agrees with the action of this acid as stated by Wurtz, especially as regards the pain, but he does not mention the very important fact that no pain is felt for some time after contact with the acid, which in my case was between one and one and a half hours, and by this time the surface has become so hard that it is difficult it not impossible to check the action underneath,so that the damage is for the most part done before one finds it out.

"The difficulty in healing appears to consist in removing the slough, as it heals very quickly when this is out of the way, and after the first siege of pain, which is a long and severe one, the sore is no more painful than any other of equal size. I think that should I meet the same accident again I should lose no time in washing it off as thoroughly as possible and then apply water-glass if this were accessible; if not I should use an alkali, and if possible soak the part in water as hot as could be borne,and apply cold cream or some other dressing which will keep the part soft and also exclude the air.

"I have also heard of two other persons who have had misfortune with this acid; they were Dr. C. F. Folsom and a Mr. Lodge. The latter had the end of his thumb badly burned. It was three months in healing and quite a loss of substance resulted. I think that books on chemistry and teachers of the science should give greater precautions as to the use of this danorous reagent. From the fact that this acid so effectually hard-

ens animal tissue without distorting it I think it might perhaps be employed by the histologists as a hardening agent for the soft tissues, especially of the nervous system, as a means of preparing them for microscopical study. I having never known this experiment to be tried, and it would be necessary to use it in very dilute form, but as far as my own observation extends, the action on the tissues would be exactly what is desired."—[*Boston Med. and Surg. Journal.*

A So Called Hermaphrodite.—There is now in London a young Frenchman who presents peculiarities alike interesting physiologically and anatomically, and distressing socially. The child of healthy Parisian parents, there was nothing peculiar noticed about him as an infant; he was believed to be a female, and named, registered and dressed accordingly. At about the age of eight years some suspicion arose that the genital organs were peculiar for a girl, but no special notice was taken. As a child he played more freely with his brothers than his sisters, and liked bicycling and riding horseback and boyish sports. Later he went to a girl's boarding-school, where he staid till sixteen years of age. He is now twenty and dresses as a woman, and his appearance in that attire is not in any way striking. The face is smooth and plump, with no sign of beard or whiskers, but a very few fine and short hairs are growing from the extremities of the upper lip as in a boy of fourteen. The growth of hair from the scalp is luxuriant and reaches below the waist. He asserts that no means of stimulating this growth has been adopted, and speaks of the trouble of constantly having to cut it. The voice is neither markedly masculine nor feminine. The larynx is small, the thyroid cartilage is not prominent, and has all the outward characters of that of a woman. The mammæ are well, not largely, developed, and glandular structure is distinctly to be felt; the nipple is fairly well formed, and pinkish in color. There is a very scanty growth of dark hair on each axilla. The pubic is hair abundant, but does not extend up towards the umbilicus in the middle line. There is a distinct penis about two inches long, with a well-formed glans, and the meatus urinarius is represented by a dimple. The prepuce forms a kind of cowl over the glans, and is wanting below. The scrotum is completely divided along the middle line, and in each half is a well-developed testicle, with a normal epididymis and spermatic cord. On sepa-

rating the two halves of the scrotum the opening of the urethra is exposed at the root of the penis, funnel-shaped, and easily admitting the little finger as far as the membranous urethra; a catheter passes readily along it into the bladder. On the inner side of each scrotal half, and close to the orifice of the urethra, is a muco-cutaneous fold very like a nympha. The perineum is long, like that of a male. By rectal examination the outline of the prostate is readily defined. The thighs and legs are distinctly of the masculine type, as is the gait; the arms are also those of an unathletic man, and the hands are large. He has good health, but requires a good deal of exercise to keep well. He asserts that he has no exclusive preference for either sex, and that he has been in love with both men and woman. There is the usual evidence of functional activity of the testicle, the associates of this man speak of his general demeanor as masculine, though occasionally markedly feminine, and they often say of him that "she is a good boy." Of course, there is no question as to the sex of this individual; he is a man with hypospadias. The special features of his case are the development of the breasts, the growth of hair from the head, the hairless face, and small larynx. It is not strange that in infancy he should have been taken for a girl, for with the smaller size of all the external genitals, the resemblance to the female sex must have been very close. It is an interesting question how far the resemblance in character to a woman—such as it is—is due simply to his education and constant association with women, or how far it is dependent upon some original peculiarity similar to that seen in the development of the mammæ and hair.—[*Lancet.*

SCROTAL CALCULUS.— A unique case of this affection is reported by Lippman, in the *Wratschebuyja Wedomosti*, 1881, No. 454. The patient, a peasent sixty-eight years old, stated that fifteen years previously he had suffered from difficulty in passing water, which finally became so aggravated that he consulted a physician, who removed from the scrotum by incision a stone weighing one hundred and twenty grammes. An urethal fistula resulted, through which all the urine passed, at first with ease, but of late with increasing difficulty. On examination a fistula was found just behind the peno-scrotal junction. All endeavors to pass a metallic or an elastic catheter per urethram were futile;

only the anterior portion of the pendulous urethra was permeable. The scrotum was as large as a child's head, and was distended by a hard mass. The testicles were dislocated toward the external inguinal apertures, and were very much atrophied. On introducing a catheter into the fistula, it was arrested by a stone. On the following day an incision was carried from the fistula backward along the raphe of the scrotum, and four calculi, weighing in all forty grammes were removed. They were rough, of a grayish yellow color, showed facets, and consisted of phosphates. When placed in apposition they were as large as a goose egg. The cavity left after the operation was cleansed with carbolic acid, drained, and healed kindly leaving a fistula, through which the patient urinated. Later he emptied his bladder with the aid of a self-made catheter, consisting of a goose-quill.—[*Centralblatt für Chirurgie.*—[*Medical Record.*

CONGENITAL LUXATIONS OF THE FEMUR.—Dr. Pravaz, in the *Lyon Médical*, for July, 1881, quoted in the Glasgow *Medical Journal*, discusses this interesting question from a hitherto neglected standpoint. During six years, from 1863 to 1878 inclusive, he recorded a hundred and twenty-five cases of congenital luxations of the femur. Of this number he noted, in a hundred and seven, the sex of the subject, the simplicity or complexity of the affection and the side of the luxation. He states the results as follows:—

	Double.	Right.	Left.	Total.
Male,	7	1	3	11
Female,	44	28	24	96
	51	29	27	107

From this it will be seen that the female sex offers an enormous proportion compared with the male; that the luxations of the one side do not markedly preponderate over those of the other; and lastly, that the number of double luxations is equal to the unilateral.

He concludes that these luxations are due to many causes, and is of opinion that it is to the comparative shallowness of the acetabulum in the female sex that the greater liability to displacement of the femur in females is due.—[*Med. and Surg. Reporter.*

TREATMENT OF BURNS.—Dr. Nitzsche, surgeon to a large

iron foundry, reports to the *Deutsche Medizinal-Zeitung*, No. 2, 1881, his plan of treating the numerous burns which happen at his works. After careful disinfection of the burnt surface with carbolic acid he covers it carefully with a thick paste made of linseed oil and litharge, to which is added five per cent. of salicylic acid. As soon as this has hardened the process is repeated. Over this is applied a thick bandage, and then an elastic bandage which is made to exert considerable compression. As a rule no change of dressing is required as healing is quite rapid. Now and then localized suppuration takes place when he removes the upper layers of dressing, sprinkles the surface with dry salicylic acid, and replaces the dressing.—[*Lancet and Clinic.*

HYPODERMIC INJECTIONS OF FOWLER'S SOLUTION IN THE TREATMENT OF CHOREA.—This method of treatment has proved very efficacious in the hands of Dr. Edward C. Mann, of New York, who, in the July number of the *Alienist and Neurologist*, publishes an article on the nature, pathology and treatment of this affection. In order to avoid any local irritation he uses a mixture of equal parts of Fowler's solution and water. Very rapid improvement generally takes place under this treatment from the first, and the patient gains flesh. He commences with three minims, and injects, subcutaneously, for a week, every other day, and on the second week increasing the dose to five minims every other day, increasing two minims each week, and in from one to two months a cure is obtained. In recent cases a month or six weeks will generally suffice, while in old cases sixty or seventy days may elapse before a cure is accomplished. In troublesome cases he also uses as adjuvants, ether spray or ice bags to spine, and electricity. By this method of using Fowler's solution, the gastric disturbances, which are produced when the medicine is given by the stomach are avoided, and the good effects which we can obtain are very much more rapid.—[*Med. and Surg. Reporter.*

RODENT ULCER AND EPITHELIOMA.—Rodent ulcer andepitheli oma are undoubtedly closely allied affections, although rodent ulcer differs in some important respects from epithelioma.

Rodent ulcer does not affect lymphatic glands, whilst epithelioma does, and often at an early stage of the disease.

Rodent ulcer is a rather dry ulceration with only little secre-

tion and no fetor, and the granulations are small. In epithelioma the secretion from the ulcerated surface is abundant and fœtid, and the granulations large, exuberant, and often in bosses.

Rodent ulcer is confined to the upper part of the face, whilst epithelioma, although it has a preference for certain localities, may under certain conditions attack any part of the body.

The points of resemblance between rodent ulcer and epithelioma are:

Both rodent ulcer and epithelioma are new growths, composed mainly of epithelial cells; and the new growth is only part involved in the ulceration. As the growth increases and includes more of the skin and deeper tissues, so the ulceration continues to extend; but the ulceration does not go beyond the new deposit.

On one point I am quite settled, that rodent ulcer, if left, will in time so change its character as to become true epithelioma. I cannot say whether this change is due to a mere progress of the disease, or whether it is that rodent ulcer is peculiarly apt to have superadded to it the characters of epithelioma after the same manner as that of old standing ulcers, unhealed wounds or scars, or other simple sores that become epitheliomatous.—[Lawson, *Ophthalmic Hospital Reports* Vol. x., part ii., 1881. —*Lancet and Clinic.*

SURGICAL TREATMENT OF HYDATID CYSTS OF THE LIVER. —In a recent memoir on the above subject, M. Roger, of Havre, arrives at the following conclusions:—

First. The slow opening by means of caustics is a painful and slow process, uncertain as regards the end it is desired to obtain, and having also its martyrology. Second. Capillary puncture, with or without aspiration, is successful if the cyst is unilocular, but not otherwise, and if several punctures are made there is danger the contents of the cyst may become purulent. The direct and primary puncture, with a trocar of large calibre, is the method accepted by the author. He allows the canula of the trocar to remain untill it is almost ready to drop from the wound; he considers that by that time adhesions have become established between the visceral peritoneum and that covering the external parietes of the abdomen, so that, consequently, when a rubber sound is introduced the liquid escapes outside the abdomen, and there will be no danger of peritonitis.—[*Medical and Surgical Reporter.*

Book Reviews.

Article LXXXIII.

☞Notice.—In order to secure reviews of books it will be necessary to send duplicate copies of the same. Authors sending reprints will please remit them in triplicate in order to obtain notice in this department. In all cases, where *single* copies of books or pamphlets are sent, a mere acknowledgement of their receipt only will be made.

Photographic Illustrations of Cutaneous Syphilis. By Geo. Henry Fox, A. M., M. D. Forty-eight plates from life, Colored by Hand. No. 10. Syphiloderma Ulcerativum, five cases. No. 11. Chancre, Chancroid, Periadenitis, Condylomata Lata. No. 12. Syphilis Hereditaria, three cases. Dactylitis Syphilitica, four cases. (New York: E. B. Treat.) Price per part, $2.00.

These three parts complete this valuable work and we have so often made commendatory remarks upon it that at the present time, they are superfluous. Syphilitic ulcers are well shown in part 10, and are beautifully colored, being as near an approach to reality as is in the power of art to do at the present time. The different varieties are exceedingly well shown in the four plates, and any one acquainted with the forms will recognize them at a glance.

In part 11, is given a photograph of a perforating syphilitic ulcer of the nose, and its truth to life is something remarkable. We have seen similar ones, and the similarity is not only striking, but the expression of the face and other details are so well brought out that it makes a characteristic and classical clinical picture.

Chancre and Chancroid are good pictures of typical cases, but of course can not serve as very reliable for the purpose of diagnosis, as every one knows the difficulties often encountered, recourse to auto-inoculation being often resorted to, to establish the differential diagnosis.

The specific and non-specific condylomata are very well shown side by side, and the difference can be very easily seen even upon superficial inspection. These are very good photographs and very clearly brought out.

In part 12, plate XLV is a striking one, showing the peculiar notched teeth of hereditary syphilis. The eyes also as well as

the general expression are typical and show the patient in pretty fair condition. The next two plates show a further invasion of the dread malady, in which the true horrors of a hereditary taint are shown in a couple of examples.

The last plate illustrating syphilitic dactylitis is good, although inferior to some that have preceded, there being absent that sharpness of outline and fulness of definition found in many others. The cases are good, and we cannot glance over the whole work without congratulating all concerned in its publication upon the great success they have achieved.

The publisher announces that he will shortly publish this series of photographic Illustrations to Skin Diseases, and Cutaneous Syphilis, in the French and German languages, editions being in the course of publication in Paris and Leipsic. We are sure that they will meet with that hearty support which they so well deserve.

1. Walsh's Physicians' Call-Book and Tablet. Price $1.50.

2. The Physicians' Hand-Book for 1882. By William Elmer, M. D., and Albert D. Elmer, M. D. (New York: W. A. Townsend, Publisher.)

3. The Physicians' Memorandum Book. Arranged by Joel A. Minor. (Ann Arbor, Mich. Joel A. Minor, Publisher.)

4. The Physician's Visiting List for 1882. (Phila.: Lindsay and Blakiston.)

5. Walsh's Physicians' Handy Ledger. 600 patients, $3.00; 1200 patients, $5.00.

1. This is a visiting list that is good for any time of the year. The blank pages for registering are so ruled that they will accommodate a practice of thirty-five patients each week of the year. There are also blanks for obstetrical, vaccination and death records etc. The book is beautifully and strongly bound in red leather, and being but three-eighths of an inch thick, is convenient for the pocket.

2. Elmer's Hand-Book has been in long use by the profession, and is truly a good one. It is arranged in a neat and compact form, and fully deserves the large sale it meets.

3. J. Minor's Memorandum Book is not such an old and established visiting list as the preceeding ones, but it is fast gaining popularity. It has its supporters, and this is so, because it is so arranged that records of the course of cases can also be kept.

4. Lindsay and Blakiston's List is old and well-established. We do not care to repeat the many commendatory remarks with which it has always been greeted by the profession, and the best method of jugding its merits is to give it a trial, and no one we are sure, will be disappointed.

5. This Ledger is a companion to the above Call-Book, or any other Visiting List. It is so simple and so complete, that half an hour each week is all that is needed to post up a really large practice. The plan is such that any one can see at a glance the state of the account, that is the days of each visit and the dates of the payments. It is really the best system of book-keeping that has ever been offered to the profession. We advise every physician who does not have one of these ledgers to send to Dr. R. Walsh, 332 C street, Washington, D. C.

On Loss of Weight, Blood-Spitting and Lung Disease. By Horace Dobell, M. D., 2nd. Edition Revised, enlarged and Annotated, to which is now added Part VI, on the Functions and Diseases of the Liver. 8vo. pp. 306. (London: J. & A. Churchhill, 11 New Burlington St. 1881.)

The author has dedicated his work to his principal foreign coadjutors who have assisted him in his annual reports on diseases of the chest. Of these he has named sixty-eight.

He commences the preface of his second edition by quoting from a letter, received by him from Thos. Watson, the Nestor of British medicine. This letter contains truly very encouraging words.

It is generally thought that persons having hæmoptysis with pain in the lungs and associated with loss of weight, are in a fair way of being the victims of consumption, but either of these conditions may exist alone, they may be due to a variety of causes, and may be independent of each other. If this is the case, the various symptoms may require as many varieties of treatment, but before this conclusion is arrived at, the symptoms will require a separate and careful consideration, this separate and careful consideration is the subject of the book, and as Watson has truly said it contains a "store-house of instruction scarcely ever to be seen."

Part I. contains the discussion on hæmoptysis and pulmonary consumption. These remarks are reinforced by clinical research.

Part II. continues the same subject with the observations, opinions and doctrines of others.

Part III. gives the treatment as used by different practitioners in this and other countries. In this part he discusses the dangers of elastic compression; of the internal use of iron; of the

modus operandi of remedies, and their appropriate adaptation to special cases.

Part IV. takes into consideration the causes of the loss of weight arising from pulmonary consumption. He considers the maintenance of a stationary weight a wonderful evidence of the perfection of vital existence. He then discusses the means of the loss of weight during the progress of the disease, such as expectoration, sweating, diarrhœa, high temperature, defective quality of food, excess of exercise, over-food supply, etc. In this part he gives his answer as to what is tubercle, the closing discussion, is the contagiousness of the disease.

Part V. is devoted to treatment. In this part he discusses the best remedies to assist in assimilation and local rest to the lungs, ending with the principles governing diet and disease.

Part VI. which was published in the JOURNAL, and at that time called forth many flattering remarks, treats on the functions and disorders of the liver and their management in accordance with the results of modern discovery. The whole work is really a very able one, but this part stands pre-eminently the most valuable, and deserves the very careful consideration of every careful practitioner of medicine. The great influence of the liver on every disease that afflicts the body is well known, but it is doubted that if its importance in connection with the lungs has been duly appreciated, and this close relationship is well shown in this part of the work. He has separated this subject into six heads; viz. Digestion and Assimilation of hydrocarbons; Carbo-hydrates of Albuminoids; the Disintegration of nitrogenous matter and evolution of heat; the retrograde congestion and fatty enlargement. The function of the liver in connection with all these processes is carefully reviewed. He closes by giving the proper treatment of the disorders of the liver by diet, hygiene and medicine. We cordially recommend the work to the profession.

THOS. F. RUMBOLD.

Editorial.

ARTICLE LXXXIV.

THE SAMPLE COPY FIEND.

Newspapers and their editors have a horror for a certain class of individuals who are known as "Exchange fiends." Medical journals have a still greater evil to contend with in the "Sample Copy fiend." He is an individual who obtains all his medical literature at the cost of a few postal cards. He sends a request for a sample copy, darkly insinuating that he may become a prospective subscriber. This he does to impose on the good nature and credulity of his intended victim. He succeeds almost invariably, and looks about him for another, and so continues his nefarious traffic until, in a few years, he comes back again to the first, and is always supplied with medical journals.

We have lost quite a good deal of money, by such business, and we would suggest to medical editors to form an alliance by which lists of these "fiends" could be exchanged and they repulsed with a deserved sneer. They prey upon the medical publisher, and must be put down, and now is as good a time as any we could suggest. We have a list of names that cost us between eighty and ninety dollars, which we will cheerfully send for the small remuneration of a one-cent stamp, providing that the editor receiving it will kindly reciprocate on the same terms.

THE JOURNAL.

This number concludes the forty-first volume of the JOURNAL, and we hope that our readers have not been disappointed in its appearance and contents during the past year. We have endeavored to give them not only their money's worth, but even more, and we will make the JOURNAL for 1882 better than it has ever been, as we are fully aware that there is som roome for improvement. To do this, however, and to make the JOURNAL the representative medical publication of the West, it is necessary that our western physicians should take an active interest in it, not to quietly await each issue and criticize it, but to lend a helping hand by contributing whatever may be valuable in their practice or whatever new and useful ideas they may have gathered in their studies and observations of facts.

It is only by such aid cheerfully and eagerly given that a medical publication can prosper and become useful and indispensable to its readers. We will do all in our power to effect this, and hope that the active coöperation of all of our readers will be spontaneous and forthcoming.

The case of trephinning of the mastoid process for ear disease, mentioned in the Sept. No. of the JOURNAL, page 323, operated on by Dr. Golden-Bird, in the London Hospital, made a good recovery. The size of the stream of blood that spirted from the wound was as large as a lead pencil.

DR. HODGEN'S LECTURES ON FRACTURES AND DISLOCATIONS.

We promised these lectures to our readers during the year 1881, but it was impossible, on account of Dr. Hodgen's many engagements, to get them ready. The first lectures will appear in the Jan. No. of 1882.

THE PERISCOPE.

It is our determination to make the JOURNAL more complete by giving greater attention to our Periscope. This department will be much enlarged in the coming year. It will, in every issue, embrace all the departments of Medicine and Surgery, but prominence will be given to Diseases of Children; Diseases of Women, including Gynæcology; Pulmonary Diseases; Mental Diseases; Hygiene; Pathology; Ophthalmology and Diseases of the Nose, Throat and Ears. While Reports on the Progress in each of these departments will be made by physicians, who have for years given special attention to them, yet it is thought that a judicious Periscope taken from the original contributions of our exchanges should be given to a much greater extent that has formerly been done.

SUPPORT WESTERN JOURNALS.

Almost every medical periodical in the West deserves to receive the hearty support of the Western practitioner. Each year, the studious physicians of our section are made to know, through a kind of experience that does not benefit them in the least, that the best medical journals for them to read, are those that contain the views of Western practitioners, and that the theory and practice contained in the Eastern journals, whether it suits Eastern diseases or not, are certainly not appropriate for our diseases. It has been observed of late years, that many of the contributors to the Eastern periodicals, if not a majority of them, are from young men who are much more apt to write a long article, than they are to give practical ideas. How is it possible for them to give practical advice, having no practical experience. It is no doubt satisfying a really laudable ambition,

for a young man to contribute even his partially crude theories to medical journals; but is this profitable reading for our Western practitioners?

In the Western and South-western States, there are a little over 26,000 physicians. From our agents we learn that scarcely one-half of them take a medical periodical of any kind, and that half of those that do read medical periodicals, take none but an Eastern publication of the cheapest species, so cheap indeed, that the thing will be sent whether it is paid for or not. These Eastern things are published by manufacturing companies, who hope to sell some of their preparations to their readers. This leaves nearly 20,000 Western physicians who do not take a Western medical journal. Their only source for improvement in medicine being from their practice, which may frequently cause their patient to suffer severely.

There is no better means of increasing one's stock of information in medicine, than by reading a well conducted medical journal, published in the section of the country in which the practitioner lives.

TO CONTRIBUTORS OF ORIGINAL ARTICLES.

Unless an original contribution will be very materially injured by publishing it in several issues, those that will occupy more than six pages will be divided. We wish our contributors to note this. It will not be very difficult for them to so compose their articles, that this division can be made without injury to the subject.

Very many writers disgust the readers, by contributing long papers, when shorter ones would present the whole of their ideas. Not one quarter of the long articles of any medical periodical are ever read, except by those who are very much interested in the subject.

Books and Pamphlets Received.

Article LXXXV.

Artificial Anæsthesia and Anæsthetics. By Henry Leyman, A. M., M. D. 8vo. pp. 338. (New York: Wm. Wood & Co. 1881.) Sept. No. Wood's Library of Standard Medical Authors.

A New form of Nervous Disease, together with an Essay on Erythroxylon Coca. By W. S. Searle, A. M., M. D. 12mo. pp. 138. (New York: Fords, Howard & Hulbert, 1881.)

A Practical Treatise on Hernia. By Joseph H. Warren, M. D. Second and Revised Edition, fully Illustrated. 8vo. pp. 428. (Boston: Jas. R. Osgood & Co. London: Sampson Low, Marston, Searle & Rivington, 1882.)

A Manual of Practical Histology. By T. Mitchell Prudden, M. D. 12mo. pp. 265. (New York: G. P. Putnam's Sons, 1881. St. Louis: Hugh R. Hildreth Printing Co.)

Rudolf Virchow. An Address, introducing the Course of Lectures of the Term 1881-82. By A. Jacobi, M. D. (Reprinted from the *Medical Record*, Oct. 22, 1881.)

Sympathetic Ophthalmia. Two Cases under Peculiar Circumstances. Sequel of Surgical Operations. By Julian J. Chisolm, M. D. (Reprinted from the *Archives of Ophthalmology*, Vol. X., No. 3.)

Ear Diseses in General Practice. By J. E. Tefft, M. D. (Read before the S. W. Missouri Medical Society.) Springfield, Mo., 1881.

A Hand-book, of Vertebrate Dissection. By H. Newell Martin, D. S., M. D., M. A., and William A. Moole, Part I. How to Dissect a Chelonian. 12mo. pp. 94. (New York: MacMillan & Co. 1881. St. Louis: Hugh R. Hildreth Printing Co.) Price 75 cents.

Eczema and its Management. A Practical Treatise based on the Study of Two Thousand Five Hundred Cases of the Disease. By L. Duncan Buckley, A. M., M. D. 8vo. pp. 344. (New York: G. P. Putnam's Sons. London: J. & A. Churchill, 1881. St. Louis: Hugh R. Hildreth Printing Co.)

Encyclopœdia of Practice of Medicine. Edited by Dr. H. von Ziemssen, Vol. XX. General Index. 8vo. pp. 499. (New York: William Wood & Co., 1881. St. Louis R. Hildreth Printing Co.)

The Physician's Memorandum Book. Arranged by Joel A. Miner. Fifth Improved Edition, with Clinical Columns and Ledger Sheets. Ann Arbor, Mich.: Joel A. Miner, Publisher.

Announcement of the Twenty-Third Annual Session of the Long Island College Hospital, Brooklyn, N. Y., Collegiate Year, 1881-82.

The Galvanic Accumulator for storing Dynamical Electricity for Cautery and Illuminating Purposes. By Louis Elsberg, A. M., M. D. (Reprinted from the Transactions of the New York Academy of Medicine.)

The Treatment of Hydrocele and Serous Cysts in General, by the Injection of Carbolic Acid. By R. J. Levis, M. D. (From Trans. Med. Soc. State of Pa. 1881.)

The Physician's Hand Book for 1882. By William Elmer, M. D., and Albert D. Elmer, M. D. (New York: W. A. Townsend, Publisher, 1882.)

Walsh's Physician's Combined Call Book and Tablet, Published by Ralph Walsh, M. D. Washington, D. C.

The City of Mobile and the Contiguous Country about the Gulf Coast, as a Winter Resort for Health and Pleasure of Invalids and others from the North and North-west. By William H. Anderson, M. D. (Mobile 1881.)

The Use of Hot Water in the Local Treatment of Diseases of the Eye. By Leartus Conner, A. M., M. D. (Extracted from the *American Journal of Medical Sciences*, Oct. 1881.)

News Items.

Article LXXXVI.

We have been creditably informed that Dr. Frank Lutz of this city, Surgeon to the Alexian Brothers' Hospital, has been invited by the Medical Department of the State University, to deliver a series of lectures. This is a well deserved recognition of the abilities of one of our most prominent young surgeons, and we have no doubt that his presence will prove a most valuable addition to the corps of lecturers. Dr. Lutz is well und favorably known by the profession, not only of St. Louis, but of the State, and the University is to be congratulated upon having secured his services as lecturer. His lectures will be devoted to the Surgery of the Abdomen, and we are sorry that other engagements will deprive us of the pleasure of listening to what no doubt will be an instructive series of discourses.

The Royal Belgian Academy of Medicine offers a prize of 1,500 francs for the best essay on Alcoholism, the limited time expiring Feb. 15, 1883. The question is to determine by means of precise observations in a somatic and psychical point of view, the effects of alcoholism upon the individual and his progeny. It is to be understood that in treating of alcoholism from a physical standpoint, the various known authorities in pathological anatomy as well as the best references in regard to recorded legal testimony are to be utilized in order to establish the limit between alcoholism and insanity, as well as the responsibility of an alcoholic for his acts.

Address A. Thiernesse, Secty. of the Royal Belgian Academy of Medicine, Brussels.

Buried at Sea.—On the steamer Parthia which reached New York Sept. 14, Professor William Warren Greene, of Portland, Me., sailed from England. He had gone with other prominent physicians to attend the International Medical Congress at London, which was held in August, and at it he had on several occasions put forth opinions on surgery which called for the learned

consideration of his colleagues. His remarks on the causes of failure in obtaining union in operation wounds and on the method best calculated to secure it had been preserved. Long a sufferer from Bright's disease, Professor Greene was unable to continue his stay in England, and as his symptoms took the appearance of uræmia, which he felt would be fatal, he took passage for home. Drs. Sayres and Little were fellow passengers, and Dr. Gamble, the medical authority aboard the Parthia, lent his aid to their counsel and treatment. Professor Greene, however, sank rapidly, and on the morning of the 10th inst., while the Parthia was in latitude 43 deg. 40 min. north, longitude 49 deg. 28 min. west, he expired. As the vessel was yet remote from land it became imperative to give the body a sea burial. All the passengers—and the Parthia carried more on this trip than ever before—joined in the expressions of regret at the Professor's demise, and seemed deeply impressed with the services. At four o'clock in the afternoon the crew, in uniform, were mustered on the upper deck, on which the passengers had already gathered. There were several clergymen aboard ship, but according to the rules of the Cunard company and the practice of the service, the captain of the vessel officiated. The ensign floated at half mast, and the engines of the Parthia were slowed, so that she lay almost still upon the water underneath a clear sky, and in weather which was pleasant beyond precedent this season. Presently the bells fore and aft began to toll, and then, borne by six seamen and covered by the American flag, the coffin containing the remains of the deceased was borne to the gangway. It was the usual kind of casket used at sea, with iron weights and perforated sides to insure its sinking to the bottom. Then all heads were uncovered and Captain McKay took his place at the gangway. A beautiful hymn adapted to the solemn nature of the occasion was sung by all on board, and then the impressive burial service of the Church of England was read. That done the bells tolled again, and the coffin was committed to the sea.—[*Gaillard's Journal.*

THE

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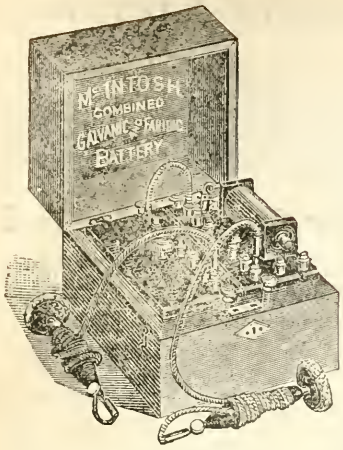

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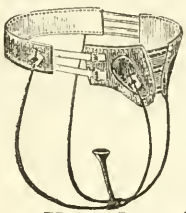

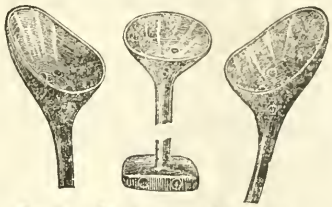

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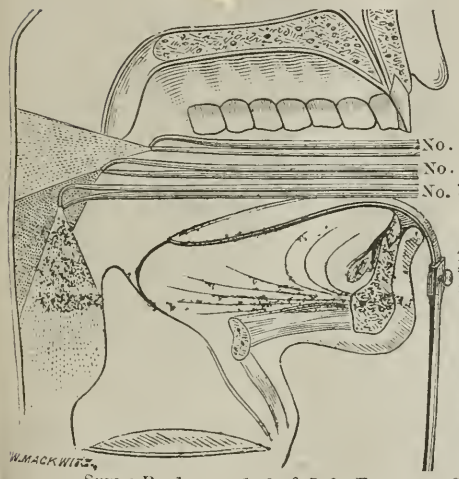

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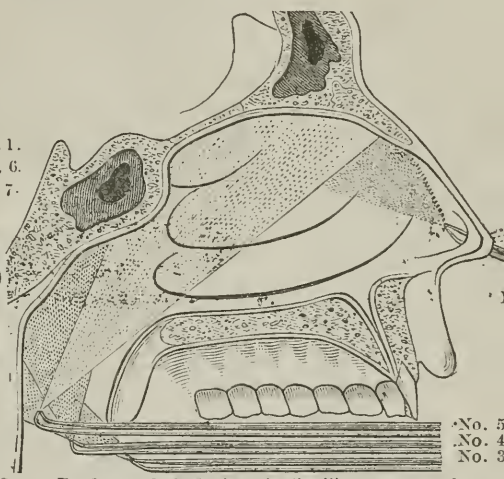

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Cheken (known also as Chekan and Chequen), was introduced to the profession of England through a report of results following its use in chronic bronchitis or winter cough by Wm. Murrell, M. D., M. R. C. P., Assistant Physician to the Royal Hospital for Diseases of the Chest, and Lecturer on Practical Physiology at the Westminster Hospital. Dr. Murrel's report is very favorable and he has supplemented it by private advices to us expressing great satisfaction with the drug in the affections in which he has employed it. He regards it as one of the most valuable introductions of late years and pronounces it a drug of very superior properties in the treatment of **chronic bronchitis**, acting in this affection both as an anodyne and exerting a favorable influence over the organic changes in the mucous membrane. It is certainly a remedy which merits a thorough trial at the hands of the profession of this country.

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"A common experience among physicians is that some cases of intercostal neuralgia are very troublesome and obstinate, resisting almost every kind of treatment; particularly is this the case in malarial districts. In such cases I would recommend the fluid extract of Persea seed. In my own person and in every case in which I have employed it I have been highly gratified with the result. Those of my medical friends to whom I have given samples of the preparation warmly endorse my opinion of it as above and I cannot but believe that further trial of it will cause it to be regarded as a valuable addition to our list of medicines."

Dr. Froehling also mentions the fact that Persea has been employed with benefit in the expulsion of tapeworm.

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